

NAVAL POSTGRADUATE SCHOOL
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THESIS

**TRIANGULAR DETERRENCE:
A FORMIDABLE ROGUE
STATE STRATEGY**

by

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December 1999

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A FORMIDABLE ROGUE STATE STRATEGY**

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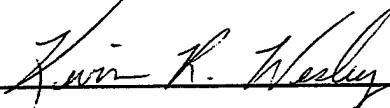
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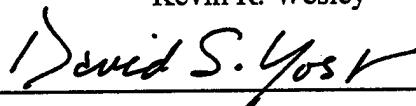
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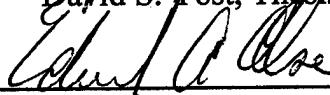


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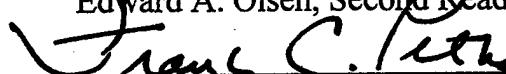
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ABSTRACT

In an effort to counter the overwhelming U.S. predominance in conventional forces, rogue states such as Iraq and North Korea have adopted a strategy based upon the use of weapons of mass destruction (WMD) — that is, nuclear, chemical, or biological arms. Moreover, rogue states have refocused their efforts to deter U.S. action from direct confrontation with the United States to threatening U.S. allies or neutral parties in potential contingencies. This strategy might enable a rogue state to avoid direct engagement with the United States as well as to make the most effective use of a small WMD program. Robert Harkavy has labeled this concept “triangular or indirect deterrence.” This thesis analyzes triangular deterrence as a credible strategy that might be implemented by rogue states throughout the world. The thesis examines historical case studies as well as plausible hypothetical future scenarios, and bases its analysis on a broad body of deterrence theory. It concludes that “triangular deterrence” presents new challenges for U.S. defense policy and that partial solutions may reside in missile defenses and adjustments in declaratory policy.

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EXECUTIVE SUMMARY

The end of the Cold War ushered in an era of reduced threat to the U.S. homeland, owing to the collapse of the Soviet Union. Rogue states have, however, continued their efforts to acquire essential materiel and technology for the development of weapons of mass destruction (WMD) and delivery systems, such as ballistic missiles. These essential elements became more accessible when the Soviet Union was dissolved, because people in the destitute former Soviet republics recognized the lucrative trade in sensitive information and materials that had been closely guarded while under Soviet control.

Following the overwhelming success of the U.S.-led coalition during the 1990-1991 Gulf War, which underscored U.S. predominance in conventional forces, rogue states such as Iraq and North Korea have apparently discontinued efforts substantially to improve and modernize their own conventional forces, because they have concluded that they cannot compete effectively with the United States in the conventional weapons arena. Consequently, rogue states have adopted a strategy based upon the use of WMD — that is, nuclear, chemical, or biological arms. The latter two categories comprise the “poor man’s nuclear weapon.”

The purpose of this thesis is to analyze a credible strategy — “triangular deterrence” — that may be implemented by rogue states throughout the world by examining historical case studies as well as plausible hypothetical future scenarios. Rogue states that are unable to compete with the United States on the conventional weapons level sometimes rely on “asymmetrical” strategies that incorporate the use of

WMD. These unpredictable, and often seemingly irrational, rogue states present the most likely near-term threat to the United States.

Two case studies examine historical events and two examine plausible hypothetical future events, including one involving North Korea. The concept of triangular deterrence is based on a broad body of deterrence theory. The thesis also relies on theories about the proliferation of weapons of mass destruction and the behavior of rogue states.

The United States continues to enjoy an enormous advantage over rogue states in the quality and quantity of its nuclear weapons arsenal. However, political and strategic factors limit the practical relevance of this U.S. nuclear advantage. U.S. regional strategies have not changed significantly since the end of the Cold War and may be inadequate for the challenges posed by rogue states in their efforts at "counter-deterrence." Faced with the insurmountable U.S. conventional force advantage and America's immense nuclear arsenal, rogue states have refocused their efforts to deter U.S. action from direct confrontation with the United States to threatening U.S. allies or neutral parties in potential contingencies. This strategy might enable a rogue state to avoid direct engagement with the United States as well as to make the most effective use of a small WMD program. Robert Harkavy has labeled this concept "triangular or indirect deterrence."

Additionally, this thesis analyzes the various motives for adopting a triangular deterrence strategy in an effort to categorize and classify rogue states along a deterrence continuum. By identifying the motives for choosing to incorporate WMDs in its strategy, the likelihood of a rogue state adopting a strategy of triangular deterrence can be estimated based on its location on the deterrence continuum.

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I. INTRODUCTION

The end of the Cold War ushered in an era of reduced threat to the United States, at least with regard to the two “canonical” threats of that confrontation — a Warsaw Pact attack against NATO Europe and a Soviet strategic nuclear strike against the U.S. homeland. As the United States sighed with relief and Western policymakers celebrated their victory, rogue states continued their efforts to acquire essential materiel and technology for the development of weapons of mass destruction (WMDs). These essential elements became more accessible when the Soviet Union was dissolved. People in the destitute former Soviet republics recognized the lucrative trade in sensitive information and materials that had been closely guarded while under Soviet control.¹

Following the overwhelming success of the U.S.-led coalition during the 1990-1991 Gulf War, which underscored U.S. predominance in conventional forces, rogue states such as Iraq and North Korea have apparently placed less emphasis on efforts substantially to improve and modernize their own conventional forces, because they have concluded that they cannot compete effectively with the United States in the conventional weapons arena. Consequently, rogue states have adopted a strategy based upon the use of weapons of mass destruction (WMD), whether nuclear, chemical, or biological, the latter two categories comprising the “poor man’s nuclear weapon.”

The purpose of this thesis is to identify a credible strategy that may be implemented by rogue states throughout the world by using historical case studies as well as plausible hypothetical future scenarios. Rogue states that are unable to compete with

¹ Geoffrey Kemp and Robert Harkavy, *Strategic Geography and the Changing Middle East* (Washington, D.C., Brookings Institution Press, 1997), p. 267.

the United States on the conventional weapons level sometimes rely on unique “asymmetrical” strategies that incorporate the use of weapons of mass destruction (WMDs). These unpredictable, and potentially irrational, rogue states present the most likely near-term threat to the United States.

The thesis methodology relies on case studies. Two case studies examine historical events and two examine plausible hypothetical future events, including one involving North Korea. The concept of triangular deterrence is based on a broad body of deterrence theory. Deterrence theory is employed in the analysis in addition to theories on the proliferation of weapons of mass destruction, and on the behavior of rogue states.

The United States continues to enjoy an enormous advantage over “rogue” states in the quality and quantity of its nuclear weapons arsenal. However, political and strategic factors limit the practical relevance of this U.S. nuclear advantage. U.S. regional strategies have not changed significantly since the end of the Cold War and may be inadequate for the challenges posed by rogue states in their efforts at “counter-deterrence.” As Fred Iklé has noted, “The Cold War’s detritus has obstructed the search for new nuclear strategies.”² Faced with the insurmountable U.S. conventional force advantage and America’s immense nuclear arsenal, rogue states have refocused their efforts to deter U.S. action from direct confrontation with the United States to threatening the allies of the United States or neutral parties in potential contingencies. This strategy might enable a rogue state to avoid direct engagement with the United States as well as to

² Fred Charles Iklé, “The Second Coming of the Nuclear Age,” *Foreign Affairs* 75, No. 1 (1996), p. 125.

make the most effective use of an inexpensive WMD program. Robert Harkavy has labeled this concept “triangular or indirect deterrence.”

These terms pertain to situations in which a weaker power lacking the capability to deter a stronger and (importantly) distant power, might choose to threaten a nuclear (or chemical or biological, or also conventional) riposte against a smaller, closer or contiguous state, usually but perhaps not always one allied to the larger tormentor or to one of its clients (or providing them basing access in a crisis), but perhaps also a neutral state, one with no real political connection to the ongoing conflict.³

The international climate has changed significantly following the break-up of the Soviet Union, and these changes have increased the propensity for rogue states to adopt the strategy elucidated by Harkavy. It is important to examine the U.S. strategy of extended deterrence, initially defined during the Cold War, and to determine whether the elements necessary for a successful extended deterrence policy are present in today’s environment or whether a new set of criteria should be developed. According to Harkavy’s analysis, a successful strategy of triangular deterrence “represents the failure or breakdown of extended deterrence.”⁴ Hence, an examination of U.S. extended deterrence policy in the post-Cold War era is necessary to determine whether today’s extended deterrence policy would be vulnerable to a triangular deterrence strategy. Additionally, it is important to identify other vulnerabilities and sensitivities that could make triangular deterrence a feasible strategy against the United States, at least in some circumstances. The current U.S. extended deterrence posture as well as potential U.S. vulnerabilities to a triangular deterrence strategy are discussed in Chapter II.

³ Robert Harkavy, “Triangular or Indirect Deterrence/Compellence: Something New in Deterrence Theory?,” *Comparative Strategy* 17, No. 1 (1998), p. 64.

⁴ *Ibid.*, p. 75.

Chapter III analyzes three case studies, two historical cases and one hypothetical case. The first case study involves Israel, the Arab states, and the Soviet Union from 1970 to 1990. In this case, Israel incorporates a triangular deterrence strategy to deter the Soviet Union; and this highlights one of the most credible motives for employing such a strategy: survival of a people or nation.

The second case study examines the Iraqi Scud missile attacks on Israel and Saudi Arabia in 1991. This case provides a good example of a state executing a strategy of triangular deterrence. Iraq did not wish to confront coalition forces directly, but instead wanted to “intimidate U.S. allies within the region and to ensure the survival of the state or regime from external threats, specifically, to prevent the United States from seeking unconditional surrender or the ouster of the leadership as the condition for an armistice.”⁵ This case illustrates that a triangular deterrence strategy may be at least partially successful against a superpower, such as the United States, even without the use of WMDs. Factors other than the triangular deterrence strategy may, however, explain the U.S. decision not to seek unconditional surrender or the ouster of Saddam Hussein’s regime — for instance, the fear of causing Iraq to collapse entirely, provoking a war among its neighbors for the spoils, and the belief (which proved mistaken) that defeat would cause internal political forces to remove Saddam from power.

The third case study replays the 1990-1991 Gulf War, but with the aggressors armed with nuclear weapons. This hypothetical case study yields a successful triangular deterrence campaign against the United States and further emphasizes many of the

⁵ Dean Wilkering and Kenneth Watman, *Nuclear Deterrence in a Regional Context* (Santa Monica: RAND MR-500-A/AF, 1995), p. 32.

sensitivities specific to the United States that could be exploited by rogue states in similar scenarios. Additionally, more motives for the implementation of a triangular deterrence strategy are identified that aid in the classification of these pariah states.

Chapter IV, the final case study, comprises the largest portion of the thesis. This case study examines a hypothetical scenario involving an aggressive North Korea threatening Japan to deter the United States from intervening following an effort by North Korea to reunite the Korean peninsula by force. The study includes historical and cultural information that suggests that it is plausible that North Korea would adopt a strategy of triangular deterrence.

Chapter V analyzes the various motives for adopting a triangular deterrence strategy in an effort to categorize and classify rogue states along the deterrence continuum. By identifying the motives for choosing to incorporate WMDs in the use of force, the likelihood of a rogue state adopting a strategy of triangular deterrence can be estimated based on its location on the deterrence continuum.

Chapter VI concludes the thesis by examining possible solutions and preventive measures to counter triangular deterrence as a feasible strategy for rogue states to employ against the United States.

The first two case studies are developed using various sources of information to reconstruct an accurate account of the conflicts. These sources include scholarly analyses, government studies, studies such as works published by research institutes such as RAND, congressional hearings, and several sources on deterrence theory. The last two cases are based upon historical and cultural information to identify a “strategic personality” likely to adopt a triangular deterrence strategy. Additionally, current events,

personal interviews with experts from various fields, and theories of international relations are employed to provide plausibility to the hypothetical cases.

II. U.S. VULNERABILITIES TO TRIANGULAR DETERRENCE

A. "OVER-EXTENDED" DETERRENCE

Many of the factors that were considered crucial to the U.S. extended deterrence posture during the Cold War have changed or have been eliminated as a result of the massive reduction in the U.S. military force structure. Some of these factors are identified in Paul Huth's book, *Extended Deterrence and the Prevention of War*. Huth presents four variables that are critical in determining the credibility and stability of the defender's deterrent threat and that therefore influence whether the potential attacker decides to challenge it. These variables are the military balance of forces, the value of the protégé to the defender, the actions of the defender in previous international confrontations, and strategies and movements of military forces by the defender in the current case of attempted deterrence.⁶

Huth presents twelve hypotheses and tests their validity in fifty-eight case studies. The hypotheses most strongly supported by his analysis are listed below and, more importantly, represent those facets of U.S. extended deterrence that have been affected the most in the post-Cold War era. The following are the hypotheses that were most influential in determining success or failure in various deterrence cases:

Hypothesis 1: The probability of deterrence success increases as the balance of military forces between attacker and defender shifts to the advantage of the defender. The immediate and short-term balance of military forces will have greater impact on deterrence outcomes than will long-term balance of military forces.

⁶ Paul K. Huth, *Extended Deterrence and the Prevention of War* (New Haven: Yale University Press, 1988), p. 34.

⁷ Ibid., p. 41, underline added.

***Hypothesis 2:** The possession of nuclear weapons and the latent threat of nuclear use by the defender will not increase the probability of extended deterrence success when the potential attacker is a nonnuclear power.⁸*

***Hypothesis 3:** The adoption of a policy of tit for tat in military escalation by the defender will increase the probability of deterrence success as compared with alternative policies of military escalation.⁹*

***Hypothesis 4:** The adoption of a firm-but-flexible diplomatic strategy by the defender will increase the probability of deterrence success as compared with alternative diplomatic strategies.¹⁰*

These four hypotheses are listed due to their pertinence to the issues facing policymakers today regarding extended deterrence. Determining if the current U.S. extended deterrence policy includes the elements of the four hypotheses listed above may help determine the likelihood of success or failure in the future application of U.S. extended deterrence policy.

A portion of ***Hypothesis 1*** is underlined to emphasize the importance of a favorable short-term military balance in a successful deterrence policy. Establishing this favorable balance of power will illustrate the resolve of the defender and convince the attacker that the defender is truly committed to the protégé. However, achieving this level of commitment will present a dilemma for future planners and policymakers, given the current U.S. military force structures.

Elements of the 1990-1991 Gulf War support ***Hypotheses 1*** and ***2***. The absence of U.S. military forces in the theater left the short-term balance of power in Iraq's favor;

⁸ Ibid., p. 42.

⁹ Ibid., p. 51.

¹⁰ Ibid., p. 53.

hence, Iraq may have discounted U.S. long-term dominance or resolve. Additionally, U.S. nuclear capabilities and the implicit threat of nuclear use in response to chemical and biological weapons use by Iraq may have been discounted as well. Nuclear weapons may have played a role in deterring Iraq from using WMDs, but they did not deter its conventional conquest of Kuwait.

With the removal of ground- and sea-based tactical nuclear weapons in 1991 by President George Bush, conventional weapons are more heavily relied upon to provide the basis of U.S. extended deterrence.¹¹ The current conventional force structures, however, cannot possibly provide a favorable balance of power in every regional scenario, unlike the luxury of a known threat that confronted U.S. forces during the Cold War.

The absence of favorable short-term conventional military balances greatly decreases the chances of successful extended deterrence. States attack other states with the intention of a swift victory, not a prolonged war of attrition. As Clausewitz observed, “No conquest can be carried out too quickly, and that to spread it out over a longer period than the minimum needed to complete it makes it not less difficult, but more.”¹² According to Paul Huth, “The important point is that the initial decision of whether to

¹¹ Charles T. Allan, “Extended Conventional Deterrence: In From the Cold and Out of the Nuclear Fire,” *The Washington Quarterly* 17, No. 3 (1994), 85 [Lexis-Nexis].

¹² Carl von Clausewitz quoted in Richard Haass, *Intervention* (Washington D.C.: Carnegie Endowment for International Peace, 1994), p. 94.

wage war is generally based on a potential attacker's estimate of the chances of military victory at the outset to early stages of armed conflict.”¹³

Conventional military escalation would remain crucial to the success of extended deterrence in regional confrontations with initial imbalances in conventional forces. The mutual vulnerability of the superpowers to a nuclear retaliatory strike is a powerful deterrent, but the conventional balance of forces remains important because the scenario most likely to lead to a challenge of nuclear deterrence is the failure of local conventional deterrence.¹⁴

The study by Huth coupled with the actions of the leaders of rogue states in the numerous post-Cold War conflicts, particularly with Iraq, raises questions about the ability of the United States to provide credible conventional extended deterrence protection to all of its allies and security partners around the world, given the current force structure. A RAND Corporation study further supports Huth's hypotheses.¹⁵

The aforementioned requirements for successful extended deterrence are important for determining and identifying cases in which rogue states might adopt a policy of triangular deterrence. Given that the United States is currently unable to meet all the requirements listed by Huth as necessary for deterrence success,¹⁶ the failure of regional U.S. extended deterrence efforts is likely in the future. Herein lies the relationship between extended deterrence and the concept of triangular deterrence as

¹³ Paul K. Huth, *Extended Deterrence and the Prevention of War* (New Haven: Yale University Press, 1988), p. 41.

¹⁴ Ibid., p. 206.

¹⁵ Kenneth Watman and Dean Wilkening, *U.S. Regional Deterrence Strategies* (Santa Monica: RAND MR-490-A/AF, 1995), p. 67.

¹⁶ Ibid., p. 90.

described by Harkavy. According to Harkavy, "triangular deterrence represents the failure or breakdown of extended deterrence."¹⁷

A 1995 study by the RAND Corporation, *U.S. Regional Deterrence Strategies*, expounds upon the difficulties the United States faces in future regional deterrence scenarios:

Given the difficulty of deterring these adversaries, the focused and long-term application of effort and resources necessary, and the limits on those resources, the United States will be able to devote its deterrence attention to only a small number of these adversaries.¹⁸

The study identifies two categories of adversaries for focusing U.S. deterrence resources: easier-to-deter and harder-to-deter.

An easier-to-deter adversary is "motivated more by a desire for gain than to avert loss and his status quo is more satisfactory than not."¹⁹ A harder-to-deter adversary is "motivated by a desire to avert loss" and his status quo is less satisfactory. The harder-to-deter adversaries present the most likely cases of extended deterrence failure and the most likely scenarios in which adversaries will implement a strategy of triangular deterrence. Due to the inability of the United States to concentrate its finite resources on the easier-to-deter adversaries, these cases may also experience extended deterrence failures, but these adversaries may not be as likely to resort to a strategy of triangular deterrence, given their significantly different motivations for aggression.

¹⁷ Robert Harkavy, "Triangular or Indirect Deterrence/Compellence: Something New in Deterrence Theory?", *Comparative Strategy* 17, No. 1 (1998), p. 75.

¹⁸ Kenneth Watman and Dean Wilkening, *U.S. Regional Deterrence Strategies* (Santa Monica: RAND MR-490-A/AF, 1995), p. 90.

¹⁹ *Ibid.*, p. 84.

In the absence of sufficient resources, the United States is forced to rely on limited forward presence and a “trip-wire” approach for the easier-to-deter adversaries instead of a “credible prompt denial and punishment...to deter hostile acts.”²⁰

So treated, some number of these adversaries will be deterred. Most, sooner or later, will not. Therefore, the United States has to focus its deterrence strategy very carefully so as to be able to concentrate its efforts on the most important interests and to make sure it can tolerate the consequences of the failure to deter other harder-to-deter adversaries.²¹

One such consequence that the United States must be prepared for in the case of extended deterrence failure is rogue states resorting to a strategy of triangular deterrence.

By resorting to a strategy of triangular deterrence a regional adversary may threaten use of WMDs to achieve three objectives: “(1) to deter U.S. intervention within the region, (2) to intimidate U.S. allies within the region, and (3) to ensure the survival of the state or regime from external threats, specifically, to prevent the United States from seeking unconditional surrender or the ouster of the leadership as the condition for an armistice.”²² Of the three objectives listed above, intimidation of U.S. allies within the region applies most directly to the strategy of triangular deterrence, but the other two objectives have an indirect application to the concept as well.

B. MULTILATERAL OPERATIONS

Just as the conditions affecting extended deterrence have changed, so has the nature of U.S. military involvement in international crises. The idea of U.S. unilateral

²⁰ Ibid., p. 90.

²¹ Ibid.

²² Dean Wilkening and Kenneth Watman, *Nuclear Deterrence in a Regional Context* (Santa Monica: RAND MR-500-A/AF, 1995), p. 32.

action is passé, except in severe contingencies in which the formation of a coalition is impractical. In most foreseeable circumstances, “The United States will need one or more forms of assistance, including base rights, overflight, intelligence, combat forces, economic help, and political support.”²³ The coalition formed during the 1990-1991 Gulf War to respond to an international crisis was unique to the post-Cold War era. The success in forming and maintaining this coalition revived the dormant collective security function of the United Nations that was rendered practically inoperative during the Cold War years by the extensive use of the veto privilege held by the five permanent members of an ideologically divided Security Council. The formation of this coalition provided both domestic and international legitimacy for the use of force. From this point forward, unilateral action would be replaced by multilateralism as the U.S. government sought the support of its own public as well as that of the international community.

The 1997 National Security Strategy states that “an important element of our security preparedness depends on durable relationships with allies and other friendly nations.”²⁴ The transition from a Cold War strategy of containment to one of engagement depends not only on the support of allies, but also on the support of the American people. The 1997 National Security Strategy states “that our engagement abroad rightly depends on the willingness of the American people and the Congress to bear the costs of defending U.S. interests in dollars, energy, and, when there is no other alternative, American lives. We must, therefore, foster the broad public understanding and bipartisan

²³ Richard Haass, “Using Force: Lessons and Choices for U.S. Foreign Policy,” in *Managing Global Chaos*, Chester Crocker, Fen Hampson, and Pamela Aall, eds. (Washington, D.C.: United States Institute of Peace Press, 1996), p. 203.

²⁴ *A National Security Strategy for a New Century*, May 1997, p. 155.

congressional support necessary to sustain our international engagement....”²⁵ Public understanding and support for a policy of engagement are achieved in large part through the organization of multilateral operations, such as the coalition that was formed for the Gulf War. The support of allies, and more importantly in some circumstances, the support from states not considered close allies provide a degree of legitimacy for the U.S. public as well as the international community when military intervention is required to address international crises.

It is unlikely in the future that the United States will undertake purely unilateral action in response to international crises. “Acting unilaterally can be expensive; it risks domestic support if Congress and the American people ask why the United States is bearing burdens that no one else is.”²⁶ Domestic support is paramount in any military operation that the United States embarks upon, but international legitimacy is nearly as important. Unilateral actions taken by the United States can be controversial internationally and “questions of legality and legitimacy inevitably arise.”²⁷ This becomes particularly important internationally since, depending on its nature, unilateral action by the United States might set a poor precedent for other nations inclined to act unilaterally. Additionally, the cost and strain on limited resources associated with responding to every international crisis unilaterally would soon become overwhelming.

²⁵ Ibid., p. 156.

²⁶ Richard Haass, “Using Force: Lessons and Choices for U.S. Foreign Policy,” in *Managing Global Chaos*, Chester Crocker, Fen Hampson, and Pamela Aall, eds. (Washington, D.C.: United States Institute of Peace Press, 1996), p. 204.

²⁷ Ibid.

In most cases, a multilateral approach to responding to international crises is in the interests of the United States, both domestically and internationally. Given this fact, multilateralism provides an attractive target with many elements that could potentially be exploited by rogue states due to the diversity of the nations in a coalition of forces. Such a target could reasonably be struck with some degree of success. This could be a limited effect, such as delaying operations for a period of time, or a more total effect, such as deterring U.S. intervention in specific regional conflicts. Hence, it would appear that a unilateral approach by the United States would eliminate the vulnerability that is associated with multilateralism. However, as noted above, this would not be in the interests of the United States, given the U.S. government's incentives to gain domestic and international approval. Forcing the United States to abandon a multilateral approach could also be interpreted as a limited — or, depending on the circumstances, a significant — achievement by rogue states implementing a triangular deterrence strategy. By disrupting the process of consensus building or dividing an existing coalition, rogue states are able to gain time and raise doubts as to the legitimacy of the intervention.

C. AVERSION TO CASUALTIES AND PROTRACTED CONFLICTS²⁸

Among the numerous sensitivities Americans have toward warfare, perhaps the most inflammatory and inciting element of war is the sight of U.S. soldiers who have made the ultimate sacrifice for their country. This aversion to casualties does not apply

²⁸ Among the numerous references to the notion of America's aversion to casualties and protracted conflicts, see Alexander George, "The Role of Force in Diplomacy," in *Managing Global Chaos*, Chester Crocker, Fen Hampson, and Pamela Aall, eds. (Washington, D.C.: United States Institute of Peace Press, 1996), 220 and Charles Dunlap, Jr., "How We Lost the High-Tech War of 2007," *The Weekly Standard*, 29 January 1996.

solely to U.S. soldiers, but to those of allies, and to a certain degree, to an adversary's forces as well and certainly to an adversary's civilian population.

Moreover, American policymakers and military planners may be forever encumbered by the specter of the Vietnam War — the abiding archetype of an inconclusive and prolonged war. Thoughts of the Vietnam conflict conjure up such notions as "slippery slope," "mission creep," "clearly-defined missions," "exit strategy,"²⁹ and other terms that remind war planners of the potential pitfalls associated with limited conflicts. The U.S. public and media continuously remind policymakers and military planners of these potential pitfalls, and in many cases, are effective in forcing considerable constraints upon top U.S. officials regarding their decisions to intervene (and at what level to intervene) in various conflicts around the world. These constraints, driven by America's aversion to casualties and to protracted conflicts, were apparent during the Bosnia and Somalia crises.

President Bill Clinton's enthusiasm for multilateralism in an effort to take a "collective stand against aggression"³⁰ during the Bosnia crisis was quelled by the tragedy in Somalia. Boutros Boutros-Ghali, then Secretary General of the United Nations, viewed President Clinton as a "soulmate"³¹ in his efforts to push the agenda of the United Nations while reducing the role the United States played in the decision-making process with regard to intervention in world crises. The success of the Gulf War may have assuaged some of the distasteful memories Americans previously associated

²⁹ George Will, "When Acting as Rome...", *Newsweek*, 1 March 1999, p. 76.

³⁰ Jeffrey Gedmin, "The Secretary-Generalissimo," *The American Spectator*, November 1993, p. 31.

³¹ Ibid.

with combat due to the quick victory and relatively low casualties, which made possible the commitment of U.S. troops to numerous questionable peacekeeping missions at the behest of the Secretary General. The American public quickly stripped away Boutros-Ghali's newly discovered power, however, on October 3, 1993.

On that date, three Black Hawk helicopters were shot down in Somalia. Eighteen Americans and over 200 Somalis died in the ensuing firefight. These images had a profound effect on the American public, and President Clinton responded in April 1994 with Presidential Decision Directive (PDD) 25. PDD 25 "sharply curtails the possibility of future armed humanitarian interventions and marks a retreat from the early Clinton administration's rhetoric on assertive multilateralism."³²

These U.S. reactions constitute important lessons for the leaders of rogue states. A recent article in the *Navy Times* illustrates this point. George Wilson writes, "Yugoslav President Slobodan Milosevic has not tried, for example, to match alliance technology. He has offset it by exploiting NATO's fears about losing pilots and killing civilians."³³ Wilson notes how this strategy achieved a degree of success in influencing the U.S.-led NATO campaign.

Rather than risk having NATO planes shot down—thereby losing support within the 19-member alliance that is trying to wage a unified war—commanders ordered bombers to stay high in the sky during the crucial first weeks of the air campaign. Air crews could not see, much less interfere with, the massive ethnic cleansing going on below them.³⁴

³² Walter Clarke and Jeffrey Herbst, eds. *Learning from Somalia* (Boulder: Westview Press, 1997): p. 239.

³³ George Wilson, "NATO Learns its Weakness: Fear of Bad Public Relations," *Navy Times*, 26 April 1999, p. 54.

³⁴ *Ibid.*

It is reasonable to expect future adversaries to exploit the sensitivities displayed by Americans on numerous occasions regarding military and civilian casualties. What is the "casualty threshold" of the American public that, if exceeded, could reduce America's resolve in a given conflict? Would the American public support a protracted war of attrition? Could a rogue state achieve the same results by exposing large numbers of its own civilians to deadly threats? These are questions that may be considered by leaders of rogue states, such as North Korea, who are concerned only with regime survival and not the welfare of the populace.

D. ENVIRONMENTAL SECURITY

Long after oil runs out, water is likely to cause wars, cement peace, and make and break empires and alliances in the region, just as it has done for thousands of years.³⁵

Environmental factors play a large role in the daily lives of the people in developing nations. Many of the basic requirements for life, such as water, food, and sanitary living conditions, are difficult to manage in a large portion of the world. The struggle for raw materials has been the source of conflict in many wars — materials required to support a nation's war capacity or to maintain a robust economy — not a competition for the crucial elements necessary to sustain life. It is easily understood how instability, chaos, and war can result when these essential elements for life are scarce, poorly managed, and in many cases, controlled by despotic rulers willing to exploit control over these vital resources to further their own interests. The 1997 National

³⁵ John Cooley, former U.S. State Department Official, 1984, on the Middle East, quoted in Norman Myers, *Ultimate Security: The Environmental Basis of Political Stability* (Washington, D.C.: Island Press, 1996), p. 37.

Security Strategy identifies "resource depletion, rapid population growth, environmental degradation, and refugee migration" as threats to American national security that pose long-term "transnational problems."³⁶

Maintaining stability throughout the world is crucial for the continued economic growth of the United States. One of the core objectives of the 1997 National Security Strategy is to "bolster America's economic prosperity."³⁷ The United States seeks new markets in developing nations and is becoming increasingly more dependent on these markets for exporting American goods as the markets of developed nations become saturated. The markets of developing nations are not profitable, however, if these nations are beleaguered by social strife due to the dearth of essential resources. Ultimately, the economic health of the United States is closely linked to the environmental health of developing countries. As former Secretary of State George Shultz has stated, "There can be no enduring economic prosperity for the United States without sustained economic growth in the Third World. Security and peace for Americans are contingent upon stability and peace in the developing world."³⁸

Another core objective of the 1997 National Security Strategy is also jeopardized by the political instability associated with the lack of, or restricted access to, essential resources of life in developing nations. It is difficult to "promote democracy abroad"³⁹

³⁶ *A National Security Strategy for a New Century*, May 1997, p. 154.

³⁷ *A National Security Strategy for a New Century*, May 1997, p. 151.

³⁸ George Shultz quoted in Norman Myers, *Ultimate Security: The Environmental Basis of Political Stability* (Washington, D.C.: Island Press, 1996), p. 26.

³⁹ *A National Security Strategy for a New Century*, May 1997, p. 151.

when the people being addressed are concerned only with the means by which they can obtain their next meal. How could these linkages between environmental security and the National Security Strategy of the United States be exploited in a triangular deterrence scenario?

One of the primary natural resources essential to life is water. The freshwater that so many nations in Africa and the Middle East depend upon passes through multiple countries. Excessive use of rivers, through damming and inefficient irrigation practices, by upstream nations can cause severe water shortages for the downstream nations. These problems have long existed and provide a potential for exploitation. Rogue states could threaten to deny water to downstream neighbors by introducing chemical or biological agents as part of an effort to influence the United States. Alternatively, projects designed and constructed with the assistance of the West (e.g., dams and irrigation channels) to use the available water in the most efficacious manner could be threatened by rogue states in hopes of achieving some degree of leverage against the United States.

E. RELIANCE UPON TECHNOLOGY

As the U.S. military moves into the twenty-first century, the highest military officers are relying heavily upon technology to compensate for shrinking budgets and poor retention rates for vital military personnel to confront the unknown and unpredictable threats of the future. *Joint Vision 2010*, the document prepared by the Chairman of the Joint Chiefs of Staff (CJCS), outlines the characteristics of America's future military. *Joint Vision 2010* (JV 2010) discusses how America's armed forces will "leverage technological opportunities to achieve new levels of effectiveness" in warfighting and how the vision of future warfighting "embodies the improved

intelligence and command and control available in the information age.”⁴⁰ A subsequent document, *Concept for Future Joint Operations*, expands upon the technological focus introduced in *JV 2010*, and declares that “Revolutionary advances in information-specific technologies will enable us to achieve information superiority which, along with technological innovation, will transform traditional ideas about maneuver, strike, protection, and logistics.”⁴¹

Incorporating the latest technological innovations into the future U.S. military is unquestionably essential if the United States is to remain the predominant military power in the world. However, relying upon technology alone to solve all the problems and meet all the threats of the future is improvident. In recent years, the U.S. military has begun to rely more heavily on civilian corporations to research, develop, and manufacture the products of the future high-tech U.S. military. Many of these products, known as commercial, off-the-shelf (COTS) technology, are available on the international markets. Armed with the same high-tech weapons as the United States, rogue states need only to develop an effective strategy to employ them against the United States. Donald Ryan recognized the innovative nature of states facing a formidable foe when he observed that “even technologically backward societies have a nasty habit of devising strategies to offset [America’s] high-tech superiority.”⁴² Moreover, as Ryan has noted,

⁴⁰ *Joint Vision 2010* (Washington, D.C.: Office of the Chairman of the Joint Chiefs of Staff, 1997), p. 1.

⁴¹ *Concept for Future Joint Operations* (Fort Monroe, Virginia: Office of Commander, Joint Warfighting Center, 1997), p. 2.

⁴² Donald Ryan quoted in Charles Dunlap, Jr., “How We Lost the High-Tech War of 2007: A Warning from the Future,” *The Weekly Standard*, 29 January 1996, p. 22.

“technologically advanced, information-intensive military organizations are more vulnerable to information warfare simply because they are information dependent.”⁴³

Charles Dunlap has described how the United States could be defeated in a future war due to its overreliance upon technology. Dunlap has built a convincing case that demonstrates the vulnerabilities of a technology-dependent military. Much of the technology required for the production of weapons of mass destruction, as well as extensive technology for delivery systems — specifically ballistic missiles — is easily accessible, and with the dissolution of the Soviet Union, many of the scientists experienced in the development and production of WMD programs are also accessible.

These vulnerabilities are among the many that rogue states could exploit in a triangular deterrence scenario. The United States should not assume that other states would employ technology in the same fashion as the United States. As Dunlap has described this mistake, “She [the United States] failed to consider how enemies with values and philosophies utterly at odds with hers might conduct war in the information age.”⁴⁴

F. THE NUCLEAR “TABOO”

The stigma associated with nuclear weapons use weighs heavy on the United States. Its status as the only nation to have ever used a nuclear weapon against another nation may account for the United States’ strong commitment to the idea of nuclear weapons “non-use,” also known as the nuclear “taboo.” It can be surmised that, in

⁴³ Ibid.

⁴⁴ Charles Dunlap, Jr., “How We Lost the High-Tech War of 2007: A Warning from the Future,” *The Weekly Standard*, 29 January 1996, p. 27.

addition to the guilt that the United States continues to bear over the use of atomic bombs on Hiroshima and Nagasaki, the United States also derives some of its firm commitment to nuclear weapons non-use from the leadership position it holds internationally. As the sole superpower in the world, the United States must be extremely selective and minimize its reliance upon nuclear weapons to resolve crises. To act otherwise could invite unrestricted nuclear weapons use among other nuclear nations, in addition to sanctioning, at least in the eyes of some observers, the use of all WMDs in conflicts between states.

This commitment to nuclear weapons non-use could be viewed as a vulnerability by rogue states that do not share the same values or norms concerning the use of WMDs. Furthermore, given the fact that the United States has renounced the use of all chemical and biological weapons, the only remaining weapons in the U.S. arsenal under the WMD umbrella for use in retaliation to a chemical or biological attack are nuclear weapons. However, for the aforementioned reasons, nuclear weapons have a strong political and psychological “taboo” associated with them. This circumstance limits the options available to the United States for responding to a chemical or biological attack.

These constraints present a troublesome dynamic for the United States when confronted with a rogue state armed with chemical or biological weapons. This dynamic is further complicated when a rogue state does not threaten the United States directly, but instead incorporates a triangular deterrence strategy and threatens an ally of the United States. Arguably, the highly unlikely chance of a U.S. nuclear response to any chemical or biological attack would be further reduced to negligible levels if the attack was

focused on a U.S. ally instead of the United States. This dynamic is one which rogue states could exploit in a triangular deterrence scenario.

G. SUMMARY

In sum, the strategy of triangular deterrence provides rogue states a large degree of flexibility and presents a tremendous challenge to the United States. Several factors affecting the potential for success of triangular deterrence strategies have been elucidated. The motivations associated with the harder-to-deter and easier-to-deter adversaries in conjunction with the intended objectives of the adversary provide a starting point from which the United States can begin to develop a response to such a strategy. The United States is forced into a reactive role, given its inability to meet the most crucial requirements for a credible extended deterrence posture, as delineated by Huth, in every region of the world. Through clearly articulating the message that “vital” interests are at stake and providing a rapid response to the situation, the United States can illustrate its resolve. To reiterate, the ability of the United States to respond in this manner depends upon the perceived legitimacy of the intervention (domestically and internationally), access into the region (often provided through multilateral cooperation), and finally, having the assets and resources available to respond to the crisis in a timely manner.

The factors discussed in this chapter have highlighted U.S. vulnerabilities to the strategy of triangular deterrence. It is conceivable that regional adversaries seeking to achieve political objectives through force and coercion could adopt this strategy. Case studies of previous military confrontations further support the judgment that states may turn to a strategy of triangular deterrence. A critical analysis of three case studies examined by Harkavy, as well as one additional case study not covered by Harkavy,

follows. Chapter III briefly discusses three examples of triangular deterrence based on Harkavy's analysis. The first case study examines the Israeli-Arab-Soviet triangle from 1970 to 1990, the second case study focuses on the 1990-1991 Iraqi Scud attacks, and the third case study considers a hypothetical Gulf War II scenario in which Iran or Iraq is equipped with nuclear weapons. The final case study, discussed in Chapter IV, involves North Korea, South Korea, and Japan. In this hypothetical scenario North Korea, depicted as the aggressor, threatens a nuclear attack on Japan if the United States retaliates in response to a North Korean conquest of Seoul, South Korea.

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III. CASE STUDIES IN TRIANGULAR DETERRENCE

A. CASE STUDY 1: THE ISRAEL-ARAB-SOVIET TRIANGLE

Israel's aspirations for a nuclear weapons program date back to its War of Independence in 1948.⁴⁵ Throughout the 1960s, Israel learned the benefits of ambiguity concerning its nuclear weapons status. Indeed, Israel learned lessons that provided the basis for its hallmark posture of opacity.⁴⁶ Even today, with Israel's nuclear capability known to all, Israel has little to gain by openly avowing its nuclear status. In Harkavy's view, "There would be a marginal gain in the credibility of deterrence — presumably all Arab leaders by now take this into account."⁴⁷ Despite the lack of a declaratory policy concerning its nuclear weapons, Israel has integrated nuclear weapons into its national strategy, and most importantly, has conveyed this to its adversaries, since the early 1970s. The following case study examines the Israel-Arab-Soviet triangle from 1970 to 1990 and highlights the scenarios in which Israel may have incorporated a strategy of triangular deterrence against the Soviet Union by threatening Arab states that were Soviet clients.

In an effort to identify categories of circumstances in which states might be more likely to implement a strategy of triangular deterrence, the conditions under which Israel was forced to operate with regard to the focus of Israel's undeclared nuclear strategy will be examined more closely. Additionally, the Soviet Union's perception of Israel's motives and objectives is equally important, because the Soviet Union attempted to tailor

⁴⁵ Avner Cohen, *Israel and the Bomb* (New York: Columbia University Press, 1998), p. 25.

⁴⁶ *Ibid.*, p. 217.

⁴⁷ Robert Harkavy, "After the Gulf War: The Future of Israeli Nuclear Strategy," *The Washington Quarterly* 14, No. 3 (1991), p. 176.

its undeclared nuclear umbrella to the surrounding Arab states based upon this perception.

Using the basic classifications identified earlier, to which category of adversary did Israel belong from the Soviet perspective? Undoubtedly, Israel would be considered a “harder-to-deter” opponent in Soviet eyes. The driving motivation for Israel was the desire to avert loss. The long history of persecution of the Jewish people has made Israel averse not to the loss of land, but to the loss of its people. It is the belief of the Israelis and others that a conventional loss on the battlefield “would lead to a massacre of genocidal proportions.”⁴⁸ There can be no stronger motive for a state’s strategy and decision to use all weapons available than to secure the existence of its people.

On 17 April 1963 Egypt, Syria, and Iraq threatened, from Israel’s perspective, the existence of Israel by signing the Arab Federation Proclamation that called for the “liberation of Palestine.” Israel was alarmed by the Arab proclamation. The Israeli leader, David Ben Gurion, wrote to the U.S. President: “The ‘liberation of Palestine’ is impossible without the total destruction of the people in Israel, but the people of Israel are not in the hapless situation of the six million defenseless Jews who were wiped out by Nazi Germany....”⁴⁹ This strong motive provided a large degree of credibility to Israel’s implicit threats to use nuclear weapons. These threats were taken seriously by the surrounding Arab adversaries as well as the Soviet Union.⁵⁰

⁴⁸ Ibid., p. 172.

⁴⁹ David Ben Gurion quoted in Avner Cohen, *Israel and the Bomb* (New York: Columbia University Press, 1998), p. 120.

⁵⁰ Avigdor Haselkorn, “Israel: From an Option to a Bomb in the Basement,” in *Nuclear Proliferation Phase II*, ed. Robert Lawrence and Joel Larus (Lawrence: University Press of Kansas, 1974), p. 170.

Issues of propinquity did not favor Israel. Isolated from its chief ally, the United States, and surrounded by hostile Arab states backed by the Soviet Union, the dominant superpower in the region, Israel had no choice but to commit to a convincing deterrence strategy to insure its survival. Given the uncertainty surrounding Israel's nuclear weapons capabilities during the nascent stages of their development coupled with a strong motive to use these weapons, Israel developed an effective deterrent against the Soviet Union despite the problem that distance created for Israel. Directly targeting the Soviet Union was probably infeasible during the early stages of the Israeli nuclear weapons program due to its dependency upon air-delivered weapons. The formidable air defense system of the Soviet Union, in addition to the likely denial of overflight clearance from neighboring countries, made the prospect of delivering Israeli air-delivered weapons into Soviet territory remote. This situation could have forced Israel into adopting a strategy of triangular deterrence in which Israel could have implicitly threatened a strike on Arab cities in response to any effort by the Soviet Union to carry out a preemptive strike on Israel's nuclear facilities.⁵¹

In addition to a strong motive, the case for the use of nuclear weapons by Israel is further supported in the RAND study discussed earlier. Although this study applied to the United States, the objectives listed for the use of nuclear weapons could be generically applied to the Israeli-Soviet scenario. Israel implicitly threatened the use of WMDs to achieve three objectives: (1) to deter Soviet intervention within the region, (2) to intimidate Soviet allies within the region, and (3) to ensure the survival of the state or

⁵¹ Robert Harkavy, "Triangular or Indirect Deterrence/Compellence: Something New in Deterrence Theory?", *Comparative Strategy* 17, No. 1 (1998), p. 68.

regime against external threats — in the case of Israel, to ensure the survival of its people. These objectives have been modified to better fit the Israeli-Soviet scenario, but retain the basic focus explicated in the RAND study. The third objective was clearly the most important to the Israelis and was probably regarded as credible by the Soviet Union. The Soviet Union probably recognized the gravity of a situation in which Israel perceived itself in a “last resort” circumstance.

Avigdor Haselkorn provides four possibilities that might have forced Israel into a “last resort” deterrence strategy. The four scenarios in which Israel might have “gone nuclear” are: “(1) Egypt with nuclear weapons, (2) Israel qualitatively inferior in conventional weapons, (3) a major arms embargo enforced either throughout the Middle East or only against Israel, and (4) a severe reduction in Israel’s capabilities for conducting a successful air war.”⁵² Israel perceived itself in more than one of these scenarios in 1970 because of Soviet intervention into the Arab-Israeli conflict.

Moscow’s intervention into the Arab-Israeli conflict changed the conventional balance of power in favor of the Arab states. Additionally, the Soviets provided a highly effective air defense system to Egypt that marked a serious degradation of Israeli air power. In July 1970, five Israeli F-4 Phantom jets were shot down in the battle over the Suez Canal and Soviet pilots began to fly air defense missions over Egypt.⁵³ This severe decrease in Israeli conventional capability and the degradation of Israeli air power signaled two of the possible “last resort” conditions in the Israeli perspective. Another

⁵² Avigdor Haselkorn, “Israel: From an Option to a Bomb in the Basement,” in *Nuclear Proliferation Phase II*, ed. Robert Lawrence and Joel Larus (Lawrence: University Press of Kansas, 1974), p. 151.

⁵³ *Ibid.*, p. 167.

“last resort” condition was met when the U.S. embargo against Israel prevented the sale of desperately needed F-4 Phantom aircraft. Israel recognized the grave situation that was developing; in July 1970, Israeli Prime Minister Golda Meir announced, “Today, I mean literally today, Israel is facing a struggle more critical than we have ever had to face before.”⁵⁴

On the RAND-proposed deterrence continuum, Israel was viewed by the Soviets as clearly on the “harder-to-deter” end. It is important to point out that accurately assessing the perceived conditions under which all parties involved in any deterrence scenario are working is paramount. According to Avigdor Haselkorn, “All the evidence indicates that in mid-1970 Israeli leaders deemed the threshold to the realization of the last resort futures to have been crossed, and the critical ‘holocaust syndrome’⁵⁵ started to gain momentum.”⁵⁶ There is much speculation as to the degree to which the Soviets realized the desperate position in which the Israelis perceived themselves; nonetheless, it does appear as though the Soviets and the rest of the world understood, at least partially,

⁵⁴ Ibid.

⁵⁵ Israel, faced with the “last resort” scenarios discussed above, viewed its situation as tantamount to the Holocaust. Ben Gurion compares the Arab proclamation to the Holocaust in the following passage. “The ‘liberation of Palestine’ is impossible without the total destruction of the people in Israel, but the people of Israel are not in the hapless situation of the six million defenseless Jews who were wiped out by Nazi Germany.... I recall Hitler’s declaration to the world about forty years ago that one of his objectives was the destruction of the entire Jewish people. The civilized world, in Europe and America, treated this declaration with indifference and equanimity. A Holocaust unequaled in human history was the result. Six million Jews in all the countries under Nazi occupations (except Bulgaria), men and women, old and young, infants and babies, were burnt, strangled, buried alive.” Avner Cohen, *Israel and the Bomb* (New York: Columbia University Press, 1998), p. 120.

⁵⁶ Avigdor Haselkorn, “Israel: From an Option to a Bomb in the Basement,” in *Nuclear Proliferation Phase II*, ed. Robert Lawrence and Joel Larus (Lawrence: University Press of Kansas, 1974), p. 167.

the Israeli position and viewed Israeli threats as highly credible. Henry Kissinger “feared that Israel, facing defeat, might resort to nuclear weapons.”⁵⁷

Playing on the fears of superpowers to achieve limited objectives introduces another motive for adopting a triangular deterrence strategy. Through its negotiations with the United States, Israel learned the valuable leverage associated with a nuclear weapons program. In 1966 Israel wanted to convey a dual message to the United States: “Israel would act responsibly and would do its best to keep the Arab-Israeli conflict conventional; and that it wanted the United States to recognize that Israel had a tangible nuclear-weapons option. Israel, therefore, was not interested in clarity.... The solution was to keep America guessing as to the nature of Israel’s nuclear weapons capacity.”⁵⁸ Although this motive was secondary to Israel’s primary motives discussed earlier, it represents a position of primacy in the motives of other states, as in the case of North Korea in 1998. This motive is not as resolute as the primary motives that drove Israel’s strategy and is located further down the deterrence continuum. This and additional motives are discussed in Chapter V.

It is postulated that since the end of the Cold War and the collapse of the Soviet Union the implicit nuclear umbrella that was once provided by Moscow to the Arab states surrounding Israel no longer exists. If this is the perception currently held by Israel, then it is possible that Israeli motives for threatening the use of nuclear weapons in the future may be derived from a less credible, and less socio-politically acceptable, position on the

⁵⁷ Insight Team of the London Sunday Times, *The Yom Kippur War* (Garden City, NY: Doubleday, 1974), p. 282.

⁵⁸ Avner Cohen, *Israel and the Bomb* (New York: Columbia University Press, 1998), p. 217.

deterrence continuum. This possibility is genuine if Israel perceives its survival as secure in the absence of a formidable regional adversary such as the Soviet Union.

In the absence of a formidable regional adversary, the Soviet Union, it is reasonable to say that the threat to Israel's existence is diminished. However, the Gulf War illustrated how vulnerable Israel remains because of its propinquity to hostile Arab states. Israel continues to be the preferred target of many Arab states, a fact that is understood and taken seriously by the Israeli people. Israel has prepared its populace by passing out gas masks in response to each showdown between Iraq and the United States.⁵⁹ Moreover, the U.S.-Israeli agreement signed by President Bill Clinton and Prime Minister Benjamin Netanyahu in October 1998 suggests that threats to Israel's existence are extant even in the absence of the Soviet Union and that Israel continues to seek, as it always has,⁶⁰ security guarantees from the United States. This agreement significantly strengthens the "American commitment to safeguard Israel's security from the threats of a post-Soviet world."⁶¹ This commitment could be viewed as a U.S. vulnerability by rogue states seeking a regional target in order to execute a strategy of triangular deterrence against the United States.

⁵⁹ Joel Greenberg, "Israel Calmly Readies Itself, Just in Case," *The New York Times*, 13 November 1998, p. A12.

⁶⁰ Avner Cohen, *Israel and the Bomb* (New York: Columbia University Press, 1998), pp. 115-136.

⁶¹ Steven Erlanger, "U.S. Signs Accord to Protect Israel From Mass-Destruction Arms," *The New York Times*, 2 November 1998, p. A13.

B. CASE STUDY 2: THE GULF WAR SCUD ATTACKS

The Iraqi Scud missile attacks against Israel and Saudi Arabia during the 1990-1991 Gulf War provide a good example of a state implementing a strategy of triangular deterrence. In the absence of the required conditions for a credible U.S. deterrent in the region, Iraq made a calculated attempt to annex Kuwait. Only days after Operation Desert Storm began, Iraqi air capabilities and much of Iraq's integrated air defense systems were completely neutralized by a massive coalition air campaign. Thus, Iraq turned to the only weapon in its inventory that could be used with a reasonable chance of surviving the coalition air campaign — the "Son of the V-2,"⁶² the Soviet-made Scud missile.

The objective of Iraq's missile campaign became evident even before Desert Storm. On October 9, 1990, "Saddam Hussein announced that Iraq had developed yet another new missile that could hit Israel."⁶³ This announcement coincided with the growing confrontation between Iraq and the nations supporting the UN blockade and the military coalition that came about as a reaction to Iraq's invasion of Kuwait. Furthermore, the announcement followed a conflict between the Israelis and Palestinians at the Temple Mount in Jerusalem — an event that "Saddam Hussein was trying to exploit to weaken Arab support for the UN."⁶⁴

⁶² James Dunnigan and Austin Bay, *From Shield to Storm* (New York: William Morrow and Company, Inc, 1992), p. 183.

⁶³ Anthony Cordesman, *After the Storm: The Changing Military Balance in the Middle East* (Boulder: Westview Press, 1993), p. 491.

⁶⁴ *Ibid.*

The Iraqi objective for the Scud missile campaign was not to directly confront the coalition forces, but instead to "intimidate U.S. allies within the region and to ensure the survival of the state or regime from external threats, specifically, to prevent the United States from seeking unconditional surrender or the ouster of the leadership as the condition for an armistice."⁶⁵ It is reasonable to assert that Iraq was successful in achieving the above objectives by implementing a triangular deterrence strategy. Additionally, by attacking a neutral party, Israel, Iraq nearly achieved its secondary objective of fracturing the fragile U.S.-led coalition by exploiting the deeply held animosities between Israel and the Arab nations within the coalition. The diplomatic efforts involved in preserving the coalition and preventing Israel from retaliating against Iraq were among the most challenging aspects of the war for U.S. policymakers.

Although the Scud attacks against Israel and Saudi Arabia were relatively ineffective militarily, they had a profound effect politically. Consequently, the Bush administration, led by Secretary of Defense Dick Cheney, declared "Scud-hunting" priority number one and devoted coalition air assets to the mission of denying Iraq the ability to use its arsenal of Scud missiles. The disconnect that developed between the Secretary of Defense and the commander of the United States Central Command (CENTCOM), General H. Norman Schwarzkopf, over the priority given to strategic objectives presented another political problem within the coalition.

General Schwarzkopf was more concerned with preparing for the glamorous U.S.-led ground campaign than maintaining the fragile coalition. He continually downplayed

⁶⁵ Dean Wilkening and Kenneth Watman, *Nuclear Deterrence in a Regional Context* (Santa Monica: RAND MR-500-A/AF, 1995), p. 32.

the need to suppress Iraq's Scud missile capabilities in public statements, which further inflated tensions in Washington, and more importantly, in Israel. As Scud missiles continued to fall on Israeli soil, the pressure on the United States to permit an Israeli retaliation against Iraq mounted. Defense Secretary Cheney pressed Schwarzkopf for an increased effort to suppress the Scuds, but Schwarzkopf was slow, and even reluctant, to act. Consequently, "CENTCOM's campaign against the Scuds raised the most doubts about his generalship in Washington."⁶⁶ Hence, Cheney was forced to take a more direct approach to convey his desires and priorities to Schwarzkopf. Following a brief that clearly reflected Schwarzkopf's perfunctory attitude toward the Scud-hunting mission, Cheney exclaimed, "...I want some coverage out there. If I have to talk to Schwarzkopf, I'll do it...As long as I am secretary of defense, the Defense Department will do as I tell them. The number one priority is to keep Israel out of the war."⁶⁷

Reluctantly, Schwarzkopf significantly increased the number of sorties to support the Scud-hunting mission. This new mission diverted air power resources from other tasks and targets, which consumed some 2,493 sorties,⁶⁸ in addition to vital intelligence gathering assets.⁶⁹ The results following the first strikes against the mobile Scud launchers were also contentious. Whereas Schwarzkopf reported impressive mission

⁶⁶ Michael Gordon and Bernard Trainor, *The General's War* (Boston: Little, Brown and Company, 1995), p. 229.

⁶⁷ *Ibid.*, p. 234.

⁶⁸ Robert Harkavy, "Triangular or Indirect Deterrence/Compellence: Something New in Deterrence Theory?", *Comparative Strategy* 17, No. 1 (1998), p. 70.

⁶⁹ Department of Defense, Final Report to Congress, *Conduct of the Persian Gulf War* (Washington, D.C.: GPO, 1992), p. 168.

“kills” on hundreds of Scud mobile launchers, national intelligence sources reflected results that were more dismal. Iraq successfully employed a “shoot and scoot” tactic that made locating and destroying the mobile Scud launchers very difficult. “The Coalition’s inability to permanently degrade SRBM command and control [was] also significant, despite determined efforts to incapacitate Iraqi military and civilian national networks.... Even in the last days of the war, Baghdad retained a sufficient capability to initiate firings from new launch areas....”⁷⁰

Although this disconnect could be attributed to a problem internal to the U.S. command structure and the poor understanding that the theater commander had for strategic-level issues, the scenario that Iraq presented to the United States was not a standard scenario. Saddam Hussein understood the political intricacies of the coalition better than the U.S. theater commander and almost succeeded in exploiting the vulnerabilities of the coalition effectively through a strategy of triangular deterrence.

The course and the outcome of the Gulf War could have been quite different if Iraq had possessed a well-developed chemical or nuclear weapons capability. There is much speculation as to why Iraq did not use its chemical weapons. Experts believe that the crude state of Iraq’s chemical weapons program during the Gulf War prevented Iraq from employing them.⁷¹ Was it the threat of a nuclear retaliation from Israel or a severe conventional response from the United States? Or, was it, as Harkavy suggests, the ability of the United States to achieve escalation dominance? It is true that the United

⁷⁰ Michael Gordon and Bernard Trainor, *The General’s War* (Boston: Little, Brown and Company, 1995), p. 226.

⁷¹ Anthony Cordesman, *After the Storm: The Changing Military Balance in the Middle East* (Boulder: Westview Press, 1993), p. 493.

States had the ability to expand the confrontation from a devastating conventional retaliation to a nuclear response of apocalyptic proportions, but a chemical response was not possible, as Harkavy implies, due to the U.S. commitment to the Chemical Weapons Convention (CWC).⁷² Many questions remain unanswered, but it is safe to assert that a state implementing a triangular deterrence strategy that is armed with a well-developed WMD program would prove to be a significantly more formidable adversary than Iraq was during the Gulf War.

C. CASE STUDY 3: DESERT STORM II, NUCLEAR WEAPONS ADDED

As discussed above, the Gulf War could have been drastically different had Iraq possessed a reliable WMD capability. In future Persian Gulf conflicts a nuclear-armed Iraq or Iran could pose a significant threat by employing a triangular deterrence strategy to offset the U.S. advantage in RMA/MTR (Revolution in Military Affairs/Military Technical Revolution) weaponry. This type of asymmetric response to the overwhelming U.S. dominance in conventional warfare is more likely in the future as the U.S. continues to widen the RMA gap.⁷³

The U.S. performance during the Gulf War signaled to many states that reliance upon mass and saturation tactics using World War II-era equipment was unsuitable in future high-tech wars. Specifically, China drew parallels between its military, in which it had confidence before the Gulf War, and the Iraqi military. Witnessing the sound and swift defeat of Iraq, China turned to ballistic missiles as the most cost-effective and

⁷² This point is discussed in further detail in Chapter II of this thesis, subheading F., The Nuclear “Taboo.”

⁷³ James FitzSimonds, “The Changing Military Threat” (presented as part of Beyond the Technological Frontiers of Force XXI Conference on 24 September 1996), p. 4.

manageable niche capability that could be developed quickly to address the RMA gap that exists between China and the United States.⁷⁴ Although China is not considered a “rogue” state, the lessons it learned from the Gulf War are probably identical to those learned by “rogue” states. Unable to upgrade entire militaries with RMA capabilities, rogue states are likely to resort to asymmetric WMD approaches complemented by capability niches such as ballistic missiles.

In a scenario involving an invasion of Kuwait or Saudi Arabia by Iraq or Iran, the United States may be faced with a more difficult challenge if one or both adversaries possess a reliable WMD capability with the ability to deliver these weapons via ballistic missiles. Countries that were U.S. coalition partners during the first Gulf War (that is, in 1990-1991) may not be as cooperative if threatened by regional powers possessing WMD capabilities. Without basing rights and regional cooperation, U.S. conventional forces would be severely limited. Additionally, with the ever-increasing range of ballistic missiles, states that were not even considered at risk in the last Gulf War, to include European countries, might also be threatened.

Israel, once again, could become a target. Although Israel would have escalation dominance vis-à-vis a WMD-capable Iran or Iraq, the obvious irrationality associated with an attack against a militarily superior adversary is not recognized by many rogue states. Iran’s reputation for “irrationality” was well established by its acceptance of

⁷⁴ Bates Gill, Senior Fellow, Foreign Policy Studies Program, Director, Center for Northeast Asian Policy Studies, The Brookings Institution (lecture given to students at the Naval Postgraduate School November 19, 1998), also see Mark Stokes, “China’s Strategic Modernization Implications for the United States,” Strategic Studies Institute, U.S. Army War College, September 1999, pp. 5-19.

massive casualties in the 1980-1988 Iran-Iraq war.⁷⁵ The motives of rogue states are not always understood by Westerners. "Most prolonged territorial disputes appear to be rooted more in the issue of relative national status than any objective calculation of strategic need. The issues of national prestige and honor have in the past proven to be particularly prone to seemingly irrational actions and military escalation."⁷⁶

Thomas Hobbes's analysis of the causes of war, it should be recalled, recognized the irrationality often associated with aggressive states.

So that in the nature of man, we find three principal causes of quarrel. First, Competition; Secondly, Difidence; Thirdly, Glory. The first, maketh men invade for Gain; the second, for Safety; and the third, for Reputation. The first use Violence, to make themselves Masters of other mens persons, wives, children, and cattell; the second, to defend them; the third, for trifles, as a word, a smile, a different opinion, and any other signe of undervalue, either direct in their Persons, or by reflexion in their Kindred, their Friends, their Nation, their Profession, or their Name.⁷⁷

The third cause, as described by Hobbes, addresses motives of some rogue states that may be misunderstood by Westerners or totally discounted.

Israel's small size, few densely populated urban areas, aversion to casualties, and diplomatic affiliation with the United States make it an attractive target, yet again, for rogue Arab states prepared to incorporate WMDs in a triangular deterrence strategy.

Playing on the U.S. aversion to casualties anywhere, Iran or Iraq could nonetheless target not only Israel or neutral nations, but threaten different sectors of their own countries.

⁷⁵ Robert Harkavy, "Triangular or Indirect Deterrence/Compellence: Something New in Deterrence Theory?", *Comparative Strategy* 17, No. 1, 1998, p. 73.

⁷⁶ James FitzSimonds, "The Changing Military Threat," (presented as part of Beyond the Technological Frontiers of Force XXI Conference on 24 September 1996), p. 3.

⁷⁷ Thomas Hobbes, *Leviathan*, ed. Richard Tuck (Cambridge: Cambridge University Press, 1991; first published in 1651), p. 88.

Expanding on a point that was alluded to in Chapter II, Iraq could threaten its own Kurdish cities and Iran could threaten the newly reestablished countries in Central Asia. Robert Harkavy refers to this behavior as a “nuclear tantrum,” which, again, is based upon the U.S. aversion to casualties of any sort, not just American.⁷⁸

In *The Next War*, former Secretary of Defense Caspar Weinberger and Peter Schweizer discuss several possible future war scenarios. One scenario features a nuclear-armed Iran demanding control of the entire Persian Gulf region. Iran demonstrates its nuclear capability by detonating a nuclear weapon within its own borders. Immediately thereafter, Iran invades Bahrain, demands that all U.S. military forces leave the Persian Gulf region within 21 days, and threatens to counter any U.S. military retaliation with a nuclear strike on one or more European cities. The United States proceeds with a strategic air campaign reminiscent of the 1990-1991 Gulf War to neutralize Iran’s missile sites. The campaign is largely successful with the exception of a single nuclear weapon that Iran uses against Monza, Italy. In response, according to Weinberger and Schweizer, the United States retaliates with a tactical nuclear weapon aimed at a known hardened Iranian nuclear facility.⁷⁹ The U.S. retaliation with a single tactical nuclear weapon

⁷⁸ Robert Harkavy, “Triangular or Indirect Deterrence/Compellence: Something New in Deterrence Theory?,” *Comparative Strategy* 17, No. 1, 1998, p. 74.

⁷⁹ Caspar Weinberger and Peter Schweizer, *The Next War* (Washington D.C.: Regnery Publishing, Inc., 1996), pp. 101-160.

against an Iranian military facility ends the Weinberger-Schweizer scenario.⁸⁰ This is a plausible triangular deterrence scenario given the extreme difficulties encountered by the United Nations WMD inspection teams in identifying and verifying capabilities at WMD facilities in Iraq following the Gulf War in addition to the difficulties associated with destroying hardened underground targets.

In the scenario analysis, Weinberger and Schweizer cite gaps in the U.S. intelligence system and the U.S. inability to restrict Iran's access to critical nuclear-related technologies as the primary U.S. weaknesses responsible for the plausibility of such a scenario. Consequently, they conclude, "conflicts with other rogue states armed with weapons of mass destruction should be expected."⁸¹

The Persian Gulf region provides one of many possible future triangular deterrence scenarios. Harkavy lists several other plausible scenarios involving the states most recognized for the export and proliferation of ballistic missile and WMD-related technology. The scenario in which a belligerent North Korea invades South Korea and threatens a nuclear attack against Japan if the United States intervenes is of particular interest. North Korea's aggressive ballistic missile program coupled with the statement given by a North Korean defector early in 1997 makes such a threat by North Korea plausible. Hwang Jang Yop, an official in North Korea's highest decision-making body,

⁸⁰ This type of response may be seen by some observers as representative of the limited and controlled military response the United States might conceivably make when retaliating with nuclear weapons in such a scenario, despite the great U.S. reluctance to employ nuclear weapons operationally (discussed in Chapter II, section F, of this thesis). Such a response, in and of itself, might be viewed as a U.S. vulnerability by rogue states making a calculated decision to use WMDs and gambling that they would be capable of withstanding such a controlled response from the United States.

⁸¹ Caspar Weinberger and Peter Schweizer, *The Next War* (Washington D.C.: Regnery Publishing, Inc., 1996), p. 160.

wrote in a secret report six months before his defection that “North Korea has nuclear and chemical weapons capable of ‘scorching’ South Korea and Japan.”⁸² This scenario is further developed in Chapter IV.

⁸² The Associated Press, “North Korea Says Defector is Deranged” (April 23, 1997, AM Cycle).

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IV. A PLAUSIBLE STRATEGY FOR NORTH KOREA

A. CASE STUDY 4: NORTH KOREA REUNITES THE PENINSULA BY FORCE

The end of the Cold War modified the geopolitical significance of former global battlegrounds. The primary focus on Europe faded with the collapse of the Soviet Union, leaving the surviving Communist regimes in Asia and Cuba as the most prominent reminders of the ideological struggle of the Cold War. The collapse of the Soviet Union also severed a major lifeline for the Democratic People's Republic of North Korea (DPRK), thereby increasing the uncertainty surrounding the DPRK's next move in the post-Cold War era. The DPRK has remained unpredictable, and has at times seemed irrational, in its policies and intentions regarding nuclear weapons development, visions for the reunification of the peninsula, and future relations with regional nations and the United States. The Korean peninsula remains a serious challenge for U.S. planners and policymakers.

North Korea maintains formidable conventional forces, and some experts hold that North Korea is the most heavily militarized society in the world today.⁸³ The areas on each side of the Korean demilitarized zone (DMZ) is the most heavily armed territory in the contemporary world. The International Institute for Strategic Studies estimates that the 75 million South Korean troops along the DMZ face at least 1.25 million North

⁸³ Nicholas Eberstadt, *Korea Approaches Unification* (New York: M. E. Sharpe, Inc., 1995), p. 122.

Korean troops on the opposite side.⁸⁴ The North Korean conventional force figures are impressive and daunting for the South Korean and American troops stationed on the DMZ, yet the true strategic focus for North Korea recently has been ballistic missiles.

The development of a ballistic missile program has been given priority over all other military projects and, most importantly, has been given priority over a failing economy and impoverished populace. Diligent efforts to develop such systems illustrate North Korea's determination to counter the overwhelming U.S. conventional force capabilities with cost-effective ballistic missiles. In view of Pyongyang's well-developed WMD program and many other factors that will be discussed later (history, intentions, motives, rationality of the leadership, etc.), there is a high probability that North Korea would adopt a strategy of triangular deterrence if Pyongyang decided to unite the Korean peninsula through the use of force. Furthermore, the United States remains vulnerable to many of the elements that such a strategy attempts to exploit.

B. THE SCENARIO

In the scenario described in *The Next War*, by Caspar Weinberger and Peter Schweizer, North Korea collaborates with China in a coordinated regional effort of aggression in which North Korea's objective is to "liberate" South Korea while China simultaneously attempts to seize the oil-rich disputed territories of the South China Sea. These coordinated military actions are designed to disperse the in-theater forces of the United States enough to prevent timely reinforcements and to ensure swift and decisive

⁸⁴ International Institute for Strategic Studies, *The Military Balance 1998/99* (London: Oxford University Press, 1998), pp. 185-187.

victories for China and North Korea.⁸⁵ The confrontation escalates into a nuclear exchange between North Korea and the United States. The Weinberger-Schweizer scenario presents a point of departure for this analysis. It is probable, in a triangular deterrence scenario, that any North Korean nuclear attack or threat of nuclear attack would be directed against Japan or South Korea and not directly at the United States, given the ability of the United States to achieve escalation dominance in a nuclear exchange with North Korea — a response that would almost certainly be supported by the American public in the case of a direct nuclear attack on U.S. forces or U.S. cities. The overwhelming superiority the United States maintains in the nuclear weapons arena in such a scenario provides a significant deterrent against direct attack with WMDs by most state actors with the possible exception of states led by irrational actors. As noted by Winston Churchill, “The deterrent does not cover the case of lunatics or dictators in the mood of Hitler when he found himself in his final dugout.”⁸⁶

The scenario on which this analysis is based also differs from the Weinberger-Schweizer scenario in that North Korean collaboration with China is not viewed as probable and certainly not essential for North Korea to employ a triangular deterrence strategy. Moreover, Beijing might be opposed to the unification of Korea, judging it contrary to China’s interests. The status of relations between the United States and China also suggests that collaborative action involving China and North Korea is unlikely. The

⁸⁵ Caspar Weinberger and Peter Schweizer, *The Next War* (Washington, D.C.: Regnery Publishing, Inc., 1996), pp. 1-98.

⁸⁶ Winston Churchill, then Prime Minister of the United Kingdom, speech on 1 March 1955, in Winston S. Churchill, *His Complete Speeches, 1897-1963*, edited by Robert Rhodes James, Vol. VIII, 1950-1963 (New York and London: Chelsea House Publishers in association with R.R. Bowker Company, 1974), p. 8630.

U.S. policy of engagement with China might actually provide the catalyst that a desperate and isolated North Korea would need to employ a triangular deterrence strategy.

The scenario in which North Korea adopts a strategy of triangular deterrence to achieve its political goals through the use of unilateral force provides the basis for this analysis. An examination of North Korean history, culture, government, diplomacy, decision-making, strategy, doctrine, and operations supports the thesis that a triangular deterrence strategy is plausible for North Korea.

C. CULTURAL AND HISTORICAL FOUNDATIONS

Chinese influence on Korea has been significant throughout Korean history. China has shaped most of Korean culture in some fashion. During the Yi dynasty in Korea, 1392-1910, “unwavering loyalty”⁸⁷ was displayed toward China. Confucianism was strictly adhered to during this period, and Korean dedication to the Confucian value system and social practices restructured the Korean system along Chinese lines more fully than ever before. Eventually the Chu Hsi school of Neo-Confucianism became the only accepted doctrine; this modified doctrine was more narrowly restrictive in Korea than the original Confucian doctrine borrowed from China. Neo-Confucianism was the basis from which the Korean political structure developed, and it remains highly influential today. The political ethic of Neo-Confucianism stresses “the mutual relationship of ruler and subject, and it is an intolerant doctrine, quick to reject all other teachings.”⁸⁸ The political culture created by Neo-Confucianism reduced all political

⁸⁷ John Fairbank, Edwin Reischauer and Albert Craig eds., *East Asia, Tradition and Transformation*, rev. ed. (Boston: Houghton Mifflin Company, 1989), p. 300.

⁸⁸ Carter Eckert et al., *Korea Old and New: A History* (Seoul, Korea: Ilchokak Publishers, 1990), p. 102.

issues to moral ones. Political opponents were not only considered wrong, but immoral and evil. Consequently, this system precluded the development of a tradition of negotiation and compromise as a way to handle political disputes. "Negotiation in Korean politics involves explaining to one's opponent why he is wrong. If he does not accede after listening, it merely proves he was insincere to begin with."⁸⁹

North Korean culture stems from Confucian teachings that stress collectivism over individualism. Confucian collectivism continues to dominate North Korean society today because it has not been exposed, unlike South Korea, to the capitalist and market culture of the West. North Korea remains the more traditional of the two Koreas, and because of this, North Koreans feel that they are the more legitimate people, untainted by selfish Western capitalism. North Korea, in typical Asian tradition, looks to the past for answers and hails the achievements of ancient dynasties. This tradition is also in contrast to the relatively more future-oriented focus of South Korea.⁹⁰

The Confucian legacy remains strong in North Korean politics and DPRK leaders exploit Confucian teachings to maximize their authority over the populace. This point is illustrated by the long rule of DPRK leaders and the way in which the people apparently regard these leaders. Reverent terms such as "beloved leader," the "great leader," the "sun of the nation," and the "father of the nation" are given to DPRK leaders.⁹¹

⁸⁹ Lee Gentry, "Strategic Personality, Country Case Study: North Korea" (Paper published by SAIC, McLean, VA, 1994), p. 2.

⁹⁰ Han Shik Park, *Korea and the World*, ed. Young Whan Kihl (Boulder: Westview Press, Inc., 1994), pp. 315-319.

⁹¹ John Fairbank, Edwin Reischauer and Albert Craig, eds., *East Asia, Tradition and Transformation*, rev. ed. (Boston: Houghton Mifflin Company, 1989), p. 923.

Pyongyang believes that it is the rightful ruler of Korea and possesses the “mandate of heaven.”⁹² In addition to the long history of absolute rule in North Korea, the North Korean view of the Western nations as “barbarians” and “imperialists” further complicates diplomatic efforts today.

North Korea’s inimical attitude is not directed solely at the West. The memory of Japanese colonialism remains strong among North Koreans and elicits strong feelings of nationalism, which often hinder diplomatic relations within the region. Japan refuses to show sufficient contrition for the atrocities inflicted upon Koreans during World War II. Other countries in the region also remember Japanese brutality during World War II. China also harbors anger toward Japan for its imperialistic expansion into Chinese territory, some of which is still disputed today.⁹³ An example of this animosity is evident. “When foreigners learn Chinese, they are sometimes taught that the character ‘hen,’ for hatred, represents the feeling Chinese have for the Japanese.”⁹⁴ These deeply rooted memories of the past are very important in Asian cultures and must be addressed before meaningful Asian regional alliances can be forged.

⁹² Lee Gentry, “Strategic Personality, Country Case Study: North Korea” (Paper published by SAIC, McLean, Virginia, 1994), p. 2. Also see Young Whan Kihl, ed., *Korea and the World: Beyond the Cold War* (Boulder: Westview Press, Inc., 1994), pp. 318-319.

⁹³ For a discussion of territorial disputes between China, Japan, and various other Asian nations involving the Senkaku (or Diaoyu) Islands and other territories in the South China Sea, see Susan Maybaumwisniewski and Mary Sommerville, eds., *Blue Horizon: United States-Japan-PRC Tripartite Relations* (Washington, D.C.: National Defense University Press, 1997). Also see Hans Binnendijk and Ronald Montaperto, eds., *Strategic Trends in China*, Institute for National Strategic Studies (Washington, D.C.: National Defense University Press, 1998).

⁹⁴ Nicholas Kristof, “The Problem of Memory,” *Foreign Affairs* 77, No. 6, 1998, p. 39.

Anti-Japanese rhetoric remains an important theme in North Korea today. Kim Il Sung not only supported anti-Japanese propaganda, but also adopted the name of a guerrilla warrior who was very successful against the Japanese.⁹⁵ As an extension of this aversion toward outside influence on Korea, Kim Il Sung grew increasingly independent of the Soviet Union. In December 1955, Kim Il Sung formally introduced the concept of *juche*, or self-reliance, which would become the guiding principle of his government. The concept of *juche* was Kim's effort to reaffirm Korean identity as a counterweight to Soviet influence. *Juche* has a military component—*jawi*, the principle of military self-defense. *Jawi* demands that every state build military forces on its own and not depend on the military forces of other countries.⁹⁶ These principles are also in sharp contrast to the South Korean system. Although there are many differences between North and South Korea, the cultural bond between the two Koreas remains. North Korea attributes the differences between the two Koreas to the influence of imperialistic outsiders.

The sensitivities surrounding the region are countless and most involve the United States in some manner. In 1994, the United States and the ROK drifted close to war with North Korea, which evoked an unfavorable reaction from Japan.

As the United States prepared for battle, it quickly became clear that Japan could not be counted on to negotiate a solution or give military support. Tokyo was not expected to send troops or warships to fight North Korea; but Japan even refused to let its naval forces clear mines. It was unclear whether Japan would lend doctors to treat wounded GIs or send ships and planes to help rescue Americans in trouble.⁹⁷

⁹⁵ Dae-Sook Suh, *Kim Il Sung: The North Korean Leader* (New York: Columbia University Press, 1988), pp. 30-54.

⁹⁶ Michael Mazarr, *North Korea and the Bomb* (New York: St. Martin's Press, 1995), p. 22.

⁹⁷ Nicholas Kristof, "The Problem of Memory," *Foreign Affairs* 77, No. 6, 1998, p. 44.

An atmosphere of regional hatred and distrust, deeply rooted in past atrocities, supports a triangular deterrence strategy for an isolated North Korea and creates a formidable challenge for the United States and its regional allies.

D. STRATEGY AND DOCTRINE

Historical legacies have a profound influence on Korean strategy today. Frequent conquests of Korea by foreign invaders have led the Koreans to accept submission to superior foreign military power, while maintaining a sense of moral superiority. "The Koreans have developed a sense that their innate skill and moral superiority gives them an edge in any confrontation, hence an inclination to gamble — sometimes recklessly — rather than make calculated decisions or practice risk avoidance."⁹⁸ Past experiences form the basis on which both North and South Korea express common goals today: national reunification, international respect, strong central leadership, and political stability. These goals provide a common sense of national chauvinism and result in Koreans reacting with a high level of xenophobia toward any foreigner attempting to dictate terms.⁹⁹

Classic Chinese texts, such as Sun-tzu's *The Art of War*, provide the basis for Korean strategic thought. That these texts continue to influence North Korean strategists is evident in the writings of Kim Il Sung. Kim Il Sung often quoted and interpreted these classic Chinese writings and implemented their teachings in every facet of the Korean

⁹⁸ Lee Gentry, "Strategic Personality, Country Case Study: North Korea" (Paper published by SAIC, McLean, VA, 1994), p. 3.

⁹⁹ Dae-Sook Suh, *Kim Il Sung: The North Korean Leader* (New York: Columbia University Press, 1988), pp. 301-313.

People's Army (KPA). The belief that the Korean peninsula will be reunified as a result of a people's revolution and not by superior military force is an extension of Kim Il Sung's juche philosophy.¹⁰⁰ This philosophy closely parallels Sun-tzu's idea that to subdue the enemy without fighting is the pinnacle of strategic skill.¹⁰¹

An external assessment of North Korean strategic philosophy is further complicated by Korean proverbs that suggest that the Koreans are more likely than other Asian peoples to take uncalculated risks because they believe they are smarter and quicker than others. North Korea has demonstrated a potential for risk-taking and a hubris that leave North Korean decisionmakers with no alternative avenues to avert disaster. "This self-confidence makes for an aggressive, dynamic people who are willing to take on the world with little regard for possible adverse consequences. There is little tradition of contingency or long-term strategic planning which may impede North Korea's ability to adjust to rapidly changing scenarios."¹⁰²

The post-Cold War strategic environment has changed significantly for North Korea. Unexpectedly, in September 1990, the USSR established diplomatic relations with Seoul; and in August 1992, China recognized the Republic of Korea (ROK). In addition to this official recognition of South Korea, trade between South Korea and the former North Korean supporters has increased greatly. The death of Kim Il Sung severed

¹⁰⁰ North Korean strategic thought is not expected to change dramatically as a result of Kim Il Sung's death in July 1994. It is likely that his son, Kim Jong-il, will perpetuate traditional elements of North Korean strategic thought espoused by Kim Il Sung.

¹⁰¹ Lee Gentry, "Strategic Personality, Country Case Study: North Korea" (Paper published by SAIC, McLean, VA, 1994), p. 5.

¹⁰² Ibid., p. 6.

personal ties between the DPRK and its former supporters, further isolating the DPRK.

North Korea also views the United States as a substantially more aggressive power based on its performance in the 1990-1991 Gulf War and its virtually unchecked pursuit of its foreign policy goals in the post-Cold War world.¹⁰³

In addition to the animosity founded in the atrocities of World War II, Korea continues to feel threatened by Japan. A fear that Japan may slowly uncouple itself from the U.S. security umbrella and develop a military establishment commensurate with Japan's economic power continues to intimidate both Koreas. The Japanese share similar fears, both currently with regard to a belligerent North Korea and in the future with respect to a unified Korean peninsula. Nuclear anxieties on both sides contribute greatly to regional tensions and complicate the strategic environment in all scenarios: for instance, North Korea as it exists currently, as a rogue state; or with the Korean peninsula unified, and Japan independent of American security assurances. These fears and ambiguities are not lost on the North Korean regime. The DPRK, although seemingly irrational by most Western standards, incorporates these factors in its decision-making and foreign policy objectives.

North Korean decision-making was designed to ensure that Kim Il Sung maintained total control over all facets of the process, particularly the military. Kim Il Sung held the positions of President (state), Korean Workers Party (KWP) General Secretary and Central Military Committee Chairman (party), and Supreme Military Commander (army). This decision-making structure was passed on to Kim Il Sung's successor, his son, Kim Jong Il. The decision-making structure is influenced by

¹⁰³ Ibid.

traditional Confucian factors, a cult of personality, “Cult of Kim,” extensive nepotism, and prominent elderly leaders with strong anti-Japanese sentiments and Korean War experience.¹⁰⁴ These factors combine to form a foreign policy based on ambiguity instead of transparency. This policy of ambiguity allows North Korea to exploit regional sensitivities and secure short-term political victories in the absence of a sound long-term foreign policy program.

The Korean propensity to gamble is illustrated in the high-stakes game of brinkmanship diplomacy played by North Korea. Large programs or expensive investments are undertaken with an “all or nothing” philosophy, further demonstrating, by Western standards, irrational behavior with regard to national and military programs. Moreover, the behavior of senior leaders may be dictated by the sole purpose of “saving face” in order to protect their personal power base. It is unlikely that senior leaders would admit responsibility for incorrect decisions.¹⁰⁵ These decision-making characteristics suggest that North Korea may act irrationally in response to external threats to the Kim regime or attempts to reunify Korea on terms that conflict with those of the DPRK.

North Korea’s ambiguous foreign policy and brinkmanship style of diplomacy may be viewed as irrational by Westerners, but can be explained by the significant cultural differences that exist between Korea and the West. Traditional Western systems of government and management depend heavily on the existence and enforcement of laws, regulations, and oversight mechanisms. As a Confucian-based society, Korea

¹⁰⁴ Ibid., p. 14.

¹⁰⁵ Ibid.

regards such mechanisms as instruments of last resort. A written contract (among Koreans) in Korea is only of value if it is the result of a carefully developed relationship; it does not represent a sufficient relationship simply because it is signed by all the parties involved. "International laws are seen as ideas subject to interpretation, not as fixed and universal principles. International 'norms' pertaining to restraint or to use of WMD would have little affect on the Korean calculus."¹⁰⁶ If the terms of a contract could be argued to stem from political motives or from bad faith, Koreans would feel justified in refusing to honor the contract. Additionally, Koreans view formal security alliances as threats to security and sovereignty. Alliance arrangements with the Soviet Union and China were considered unreliable and intrusive; these negative experiences provided the impetus for the development of the juche philosophy in North Korea.

Much of the North Korean strategy and doctrine is unknown, but what is known is that there are considerable differences, both ideologically and culturally, between North Korea and the West that could significantly impede diplomatic relations. The North Korean regime is described as an irrational, desperate, and isolationist regime willing to "gamble" with its foreign policy, concerned only with the survival of the Kim regime, and threatening to its regional neighbors. Given North Korea's reliance upon ancient Chinese texts as the basis for the development of strategy and doctrine, it is likely that the following passage from Sun Tzu was utilized: "What is of supreme importance in war is to attack the enemy's strategy.... Next best is to disrupt his alliances.... The next best is to attack his army.... The worst policy is to attack cities."¹⁰⁷ The fact that an adversary's

¹⁰⁶ Ibid., p. 3.

¹⁰⁷ Sun Tzu, *The Art of War*, trans. Samuel Griffith (New York: Oxford University Press, 1963), pp. 77-78.

alliances are given a higher priority than its army provides deeply rooted doctrinal support for a strategy of triangular deterrence. Pyongyang's employment of a strategy of triangular deterrence is plausible, given this analysis.

E. WEAPONS OF MASS DESTRUCTION

In addition to large and imposing conventional forces, North Korea possesses a limited nuclear weapons capability and a well-developed chemical and biological weapons capability. International mechanisms have only been marginally successful in reducing the threat posed by North Korea's enormous WMD stockpile. The 1994 Agreed Framework successfully halted production of fissile material at North Korea's Yongbyon complex; however, it is estimated that enough plutonium was produced prior to 1994 to complete at least one nuclear weapon.¹⁰⁸ North Korea signed the Nonproliferation Treaty (NPT), yet claims to have a "special status," a claim not acknowledged by the other parties to the NPT. North Korea is not a signatory to the Chemical Weapons Convention (CWC), nor is it a member of the Missile Technology Control Regime (MTCR). Pyongyang is a signatory to the Biological and Toxin Weapons Convention, however. North Korea's disregard for international treaties and its erratic behavior present a serious threat to the world. It is likely that North Korea has no intention of complying with the various international mechanisms listed above unless its compliance is bought with concessions from the West and other diplomatic favors.¹⁰⁹

¹⁰⁸ DefenseLINK, "Northeast Asia," available online at <http://www.defenselink.mil/pubs/prolif97/ne_asia.html> [7 March 1999].

¹⁰⁹ Ibid.

The origins of Korea's nuclear weapons program date back to World War II. As the bombing of the Japanese home islands increased, Japan moved its secret nuclear weapons program to the northern part of its Korean colony to take advantage of the area's undamaged electricity-generating capacity and essential resources. Following the division of Korea in 1945, the Soviet Union used the resources of North Korea for its own nuclear weapons program. During the 1950-1953 Korean War, North Korea became the focus for the U.S. threats to use nuclear weapons to bring an end to the Korean War.¹¹⁰

The United States made tacit, and later explicit, statements concerning the possible use of nuclear weapons during the Korean War. These statements were directed primarily toward the Chinese in an effort to dissuade them from continuing to support the North, but the enormous bargaining power of nuclear weapons was not lost on the North Koreans. President Harry Truman promised in November 1950 that the United States would take "whatever steps necessary" to stop the Chinese intervention, claiming that the use of nuclear weapons had always been under 'active consideration.'¹¹¹ In 1953, President Dwight Eisenhower began conveying his willingness to use nuclear weapons to end the stalemate of the Korean War. Secretary of State John Foster Dulles during a meeting with Jawaharlal Nehru, India's leader, made additional statements of resolve. Aware of Nehru's close ties to China, Dulles was confident that his strong message concerning the U.S. commitment to use nuclear weapons if negotiations with North

¹¹⁰ Don Oberdorfer, *The Two Koreas: A Contemporary History* (Reading, MA: Addison Wesley Longman, Inc., 1997), pp. 251-252.

¹¹¹ Michael Mazarr, *North Korea and the Bomb* (New York: St. Martin's Press, 1995), p. 15.

Korea broke down would be conveyed to the Chinese. Two months after this meeting, in July 1953, an armistice was concluded ending the Korean War. "Dulles and Eisenhower both claimed afterward that the threat of nuclear weapons played a major role in bringing about the truce agreement that ended the war."¹¹²

The North Korean leaders apparently agreed with Dulles' and Eisenhower's assessment of the political power associated with nuclear weapons. This event provided one of the earliest motives for North Korea to pursue a nuclear weapons program.

Michael Mazarr lists five North Korean motives for seeking a nuclear weapons program: the North Koreans wanted a nuclear arsenal to deter U.S. nuclear use and to counter-balance the U.S. nuclear umbrella; the North Koreans viewed a small nuclear arsenal as insurance against an eventual South Korean conventional superiority; North Korean leaders viewed nuclear weapons as a means of obtaining diplomatic leverage; a successful nuclear weapons program would bolster regime legitimacy during the transition of power from Kim Il Sung to Kim Jong Il; and finally, nuclear weapons would allow North Korea to reduce its dependence on China and Russia and to increase its freedom of independent action.¹¹³

In keeping with North Korea's policy of ambiguity, confirmation of a nuclear weapons capability has never been articulated, nor has a policy for the integration of such weapons into a comprehensive strategy. Reports from defectors and Chinese sources, however, confirm North Korea's aspirations for attaining a nuclear weapons capability. In 1991, Beijing officials reported that North Korea had stated that "the more hostile

¹¹² Ibid., p. 16.

¹¹³ Ibid., pp. 17-19.

forces are afraid of nuclear weapons, the more we should arm ourselves with them.”¹¹⁴ It is a widely held belief among experts that North Korea currently possesses one or two weaponized nuclear devices. Kim Duk-hong, an aide to DPRK defector Hwang Jang-yop, said in an interview published by the Japanese daily *Sankei Shimbun* that the DPRK has at least five nuclear weapons developed with help from Russia and Pakistan.¹¹⁵ Additionally Kim quoted Jong Pyong-ho, Worker’s Party Secretary in charge of military supply, as saying,

I heard that (Jong) also said the country has already possessed five nuclear bombs based on plutonium.... Since the collapse of the Soviet Union, various kinds of things were shipped from Russia. We can naturally think plutonium was one of them. A number of Russian technicians had been staying at apartments of the defense agency. I heard that the nuclear development facilities were constructed several tens of meters underground, so they can not be detected by inspections.¹¹⁶

North Korea’s threat to withdraw from the Nonproliferation Treaty in March 1993 was believed to be a response to the U.S.-South Korean Team Spirit exercises. North Korea viewed these exercises as a “nuclear war rehearsal targeted against the DPRK” that had raised tensions on the peninsula and “compelled our country to enter a semi-war state.”¹¹⁷ Given North Korea’s vehement opposition to the Team Spirit exercise and its rash reaction regarding the NPT requirements involving the International Atomic Energy Agency (IAEA) inspections, it is reasonable to believe that North Korea planned to

¹¹⁴ Ibid., p. 107.

¹¹⁵ Agence France-Press, Tokyo, “North Korea Reportedly has Five Nuclear Bombs” (April 16, 1999) available online at <<http://www.nautilus.org/library/index.html>>[18 April 1999].

¹¹⁶ Ibid.

¹¹⁷ Michael Mazarr, *North Korea and the Bomb* (New York: St. Martin’s Press, 1995), p. 104.

resume or pursue its nuclear weapons program more aggressively without the hindrance of IAEA inspectors. Additionally, North Korea soon realized the bargaining potential of its threat to withdraw from the NPT, recognizing that nuclear weaponry was a “promising instrument for helping to maintain the existing system [in North Korea].”¹¹⁸ It is evident that the motives for developing a North Korean nuclear weapons program evolved during this crisis from security concerns toward the use of the nuclear issue for diplomatic leverage.

North Korea’s chemical weapons (CW) program began in the 1960s. Since the 1980s, North Korea has incorporated chemical weapons into its military plans and operations. This training effort has intensified since 1990. The North Korean armed forces have updated their chemical weapons protective gear and performed extensive training exercises in preparation for operations in a contaminated environment. North Korean civilians also train in chemical warfare drills, and key military and civilian production facilities are equipped with chemical protection and decontamination equipment. The effort to train the military and civilians alike suggests that North Korea is prepared to use its chemical weapons.¹¹⁹

The Korean People’s Army controls an extensive chemical weapons inventory that includes sarin and tabun nerve gases, phosgene, mustard gas, and the blood agent hydrogen cyanide. In March 1994, a North Korean defector, Sergeant Lee Chung-guk, confirmed that North Korea is capable of delivering these agents via ballistic missiles. In

¹¹⁸ Ibid., p. 106.

¹¹⁹ DefenseLINK, “Northeast Asia,” available online at <http://www.defenselink.mil/pubs/prolif97/ne_asia.html> [7 March 1999].

August 1994, a Chinese military journal, *Modern Weapons*, corroborated Lee's claims, stating that "North Korea's new Nodong medium-range ballistic missile could deliver either a 50 kt nuclear warhead or nerve gas."¹²⁰ In June 1995, a South Korean report claimed that North Korea has a stockpile of more than 1,000 tons of sarin and other CW agents, which "would make it one of the world's leading producers of chemical weapons."¹²¹

The North Korean biological weapons (BW) program is not as extensive as its chemical weapons program, but is a serious concern nonetheless. At least 13 different strains of bacteria have been studied since the 1960s, including anthrax, cholera, and botulinum. In 1993, the Central Intelligence Agency confirmed "North Korean experimentation at a number of research institutes on BW pathogens for anthrax, cholera, and bubonic plague."¹²² As is the case with chemical weapons, North Korea has a variety of means for delivering biological weapons.¹²³

In addition to the obvious threat that these WMD programs pose in the hands of the North Koreans, North Korea's willingness to share and sell WMD technology and equipment to other rogue states is equally alarming. North Korea has worked closely with Syria and Libya in research regarding — and production of — chemical and

¹²⁰ Centre for Defence and International Security Studies, "Devil's Brew Briefings: North Korea," available online at <<http://www.cdiis.org/hometemp.htm>> [7 March 1999].

¹²¹ Ibid.

¹²² Ibid.

¹²³ DefenseLINK, "Northeast Asia," available online at <http://www.defenselink.mil/pubs/prolif97/ne_asia.html> [7 March 1999].

biological weapons (CBW).¹²⁴ In addition to the development and transfer of WMD technology, North Korea has made considerable progress in its delivery systems, particularly ballistic missiles.

F. BALLISTIC MISSILE DEVELOPMENT

For almost three decades, North Korea has made significant advances in its ballistic missile programs despite international condemnation and nonproliferation sanctions. Although North Korea has made extensive indigenous advances in the production of ballistic missiles, much of the technical and economic assistance has come from abroad. North Korea's national will and concerted effort have eclipsed the economic woes of the country and the dire living conditions of the North Korean people.

North Korea has pursued an aggressive ballistic missile program that has steadily progressed from producing and exporting SCUD short-range ballistic missiles (SRBMs) to the development of medium-and long-range missiles. North Korea produces two variants of the former Soviet Union's SCUD SRBM, the SCUD B (300-kilometer range) and SCUD C (600-kilometer range), both of which are currently deployed and exported.¹²⁵ In 1990, North Korea began work on the Nodong medium range ballistic missile (MRBM). The Nodong missile has a range of 1300 kilometers and has been in

¹²⁴ Centre for Defence and International Security Studies, "Devil's Brew Briefings: North Korea," available online at <<http://www.cdiis.org/hometemp.htm>> [7 March 1999].

¹²⁵ "Feasibility of Third World Advanced Ballistic & Cruise Missile Threat," Vol. 1, by Systems Assessment Group, National Defense Industrial Association, Land Attack and Air Defense Committee, October 1998, p. 59.

production since 1994.¹²⁶ The Nodong ballistic missile was exported to Iran in 1996, and Nodong technology was incorporated in the Pakistani Ghauri¹²⁷ missile and the Iranian Shahab¹²⁸ missile in 1998. The development of a North Korean long-range ballistic missile (LRBM), the Taepo Dong 1 (1,500-2,000 kilometer range) and the Taepo-Dong 2 (4,000-6,000 kilometer range) has been rapid and successful.¹²⁹ The debut of the Taepo-Dong 1 came as a surprise to the U.S. intelligence community due to its advanced design, capabilities, and the compressed timeline under which it was developed.

North Korea's ballistic missile program is considered to be the most advanced among all "rogue" nations seeking such capabilities. "Beyond North Korea, we judge it unlikely that countries, other than Russia and China, will develop, produce and deploy an ICBM capable of reaching the United States any time in the next decade."¹³⁰ This estimate takes into account the extensive transfer of theater missile technology currently, as well as the anticipated future technology transfer rate. Future ballistic missile

¹²⁶ Centre for Defence and International Security Studies, "Devil's Brew Briefings: North Korea," available online at <<http://www.cdiis.org/hometemp.htm>> [7 March 1999].

¹²⁷ "Feasibility of Third World Advanced Ballistic & Cruise Missile Threat," Vol. 1, by Systems Assessment Group, National Defense Industrial Association, Land Attack and Air Defense Committee, October 1998, p. 29.

¹²⁸ Robert Walpole, National Intelligence Officer for Strategic and Nuclear Programs, "1998 Report on the Ballistic Missile Threat," Carnegie Endowment for International Peace, Proliferation Brief, Vol. 1, No. 13, 28 September 1998.

¹²⁹ "Feasibility of Third World Advanced Ballistic & Cruise Missile Threat," Vol. 1, by Systems Assessment Group, National Defense Industrial Association, Land Attack and Air Defense Committee, October 1998, p. 29.

¹³⁰ "1998 Report on the Ballistic Missile Threat," Carnegie Endowment for International Peace, Proliferation Brief, Vol. 1, No. 13, 28 September 1998.

capabilities have proven to be very difficult to assess, however, as the Taepo-Dong 1 missile launch on August 31, 1998, highlighted.

Intelligence sources have been following the development of the Taepo-Dong 1 missile since the 1990s. The Taepo-Dong 1 was expected to be a two-stage medium-range ballistic missile. The August 31, 1998, Taepo-Dong 1 launch had been expected for some time, but the use of a three-stage ballistic missile incorporating a space launch vehicle (SLV) was completely unexpected. The North Korean ballistic missile program is much broader and “evolving much more rapidly than had been previously reported.”¹³¹ The August 1998 SLV launch provided some fundamental missile staging tests and payload estimates essential for future ICBM development and conversion.¹³² The staging technology used by North Korea is similar to that used in the Chinese ballistic missile program. The unexpected characteristics of the Taepo-Dong 1 launch generated additional concerns, one of which is the degree of foreign assistance involved in the development of ballistic missiles in North Korea and other aspiring rogue states.

Foreign assistance has become a serious factor in the proliferation of ballistic missiles. Former U.S. Secretary of Defense Donald Rumsfeld has stated that foreign assistance is no longer considered a “wild card, as some people have been prone to call

¹³¹ Steven Cambone, Staff Director of the Rumsfeld Commission, “1998 Report on the Ballistic Missile Threat,” Carnegie Endowment for International Peace, Proliferation Brief, Vol. 1, No. 13, 28 September 1998.

¹³² “1998 Report on the Ballistic Missile Threat,” Carnegie Endowment for International Peace, Proliferation Brief, Vol. 1, No. 13, 28 September 1998.

it.”¹³³ The assistance available today is comprehensive, and not limited to just specific aspects of ballistic missile development. “The full range of design, engineering, and scientific capabilities”¹³⁴ is available on the open market. Russia and China continue to represent the largest sources of ballistic missile technology and material.

The sale of ballistic missile and WMD technology may become more enticing for Russia as economic conditions continue to plummet. Some European experts on Russia’s current condition characterize Russia as the “Wal-Mart of WMD production” and expect Russia to become an even larger contributor to proliferation in the future.¹³⁵ George Tenet, Director of Central Intelligence, shares this expectation with regard to Russia’s increasing proclivity to transfer advanced missile technology. Referring to Russia’s assistance to Iran, Tenet stated, “Especially during the last six months, expertise and matériel from Russia has continued to assist the Iranian missile effort in areas ranging from training to testing to components. This assistance is continuing as we speak, and there is no doubt that it will play a crucial role in Iran’s ability to develop more sophisticated and longer-range missiles.”¹³⁶

¹³³ Donald Rumsfeld, quoted by Steven Cambone, Staff Director of the Rumsfeld Commission, “1998 Report on the Ballistic Missile Threat,” Carnegie Endowment for International Peace, Proliferation Brief, Vol. 1, No. 13, 28 September 1998.

¹³⁴ Steven Cambone, Staff Director of the Rumsfeld Commission, “1998 Report on the Ballistic Missile Threat,” Carnegie Endowment for International Peace, Proliferation Brief, Vol. 1, No. 13, 28 September 1998.

¹³⁵ Informal lecture given by a European scholar (anonymity requested) to students at the Naval Postgraduate School, 4 March 1999.

¹³⁶ James Risen, “C.I.A. Sees a North Korean Missile Threat,” *The New York Times*, 3 February 1999, p. A6.

Additionally, as states such as Iran, Iraq, Pakistan, and North Korea develop indigenous WMD and ballistic missile programs, transfer and sales will increase. Detection and prevention will therefore become even more difficult for the United States and its allies. It is believed that Pakistan may have been instrumental in the staging capabilities illustrated by North Korea in the August 31, 1998, Taepo-Dong 1 launch.¹³⁷ The North Koreans have also made it clear that they plan to continue exporting missiles, including LRBM^s. Representatives from states such as Iran were present in North Korea to witness the Taepo-Dong 1 launch,¹³⁸ signifying North Korea's willingness to cooperate freely with other pariah states.

The North Koreans have clearly made substantial advances in the development of ballistic missiles. The Rumsfeld Commission report analyzed the threat posed by Intercontinental Ballistic Missiles (ICBMs) and concluded that the North Korean Taepo-Dong 2 could pose a threat to Alaska, Hawaii and even the continental United States with smaller payloads within "a few years."¹³⁹ The increased range of North Korean missiles also provides a larger selection of targets for a North Korean strategy of triangular deterrence.

¹³⁷ David Wright, Senior Staff Scientist at the Union of Concerned Scientists, "1998 Report on the Ballistic Missile Threat," Carnegie Endowment for International Peace, Proliferation Brief, Vol. 1, No. 13, 28 September 1998.

¹³⁸ "Feasibility of Third World Advanced Ballistic & Cruise Missile Threat," Vol. 1, by Systems Assessment Group, National Defense Industrial Association, Land Attack and Air Defense Committee, October 1998, p. 53.

¹³⁹ "1998 Report on the Ballistic Missile Threat," Carnegie Endowment for International Peace, Proliferation Brief, Vol. 1, No. 13, 28 September 1998.

The development of a formidable ballistic missile capability gives North Korea's WMD program further credibility as a threat that must be taken seriously. Japan perceives North Korea's aggressive ballistic missile program as a serious threat. Recently, Japan threatened to suspend all cash remittances to North Korea from Koreans living in Japan if North Korea insisted upon testing its new long-range Taepo-Dong 1 missile. This ballistic missile is expected to be similar to the missile fired on August 31, 1998, with an extended range capability. "The remittances, estimated at \$600 million to \$1 billion a year, are a major source of capital for North Korea."¹⁴⁰ Ichita Yamamoto, a Liberal Democratic Party member of the Upper House, stated, "Cutting off their [North Korea] cash flow from Japan, even if only 30 to 40 percent of it, will certainly do a lot of damage because they are using this money for weapons production and other military activities."¹⁴¹ Whether North Korea's motives for developing such a robust ballistic missile capability reflect security concerns or a desire to increase its diplomatic leverage (or both), ballistic missiles greatly enhance North Korea's ability to influence and threaten the region with a triangular deterrence strategy.

In the previous chapters, U.S. vulnerabilities and rogue state motives for acquiring WMD and implementing a strategy of triangular deterrence were discussed. Case studies illustrated how U.S. vulnerabilities could be exploited by rogue states and warned of potential future dilemmas that the United States could encounter. Chapter V examines the possible motives of rogue states for using force to resolve political disputes and

¹⁴⁰ Calvin Sims, "Japan Weighs Ban on Sending Cash Home to North Korea," *The New York Times*, 9 August 1999, p. A6.

¹⁴¹ Ibid.

attempts to determine the likelihood of a rogue state choosing to pursue a triangular deterrence strategy against the United States. This attempt to categorize the motives of rogue states is the first step in defending against possible asymmetric strategies.

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V. ANALYSIS

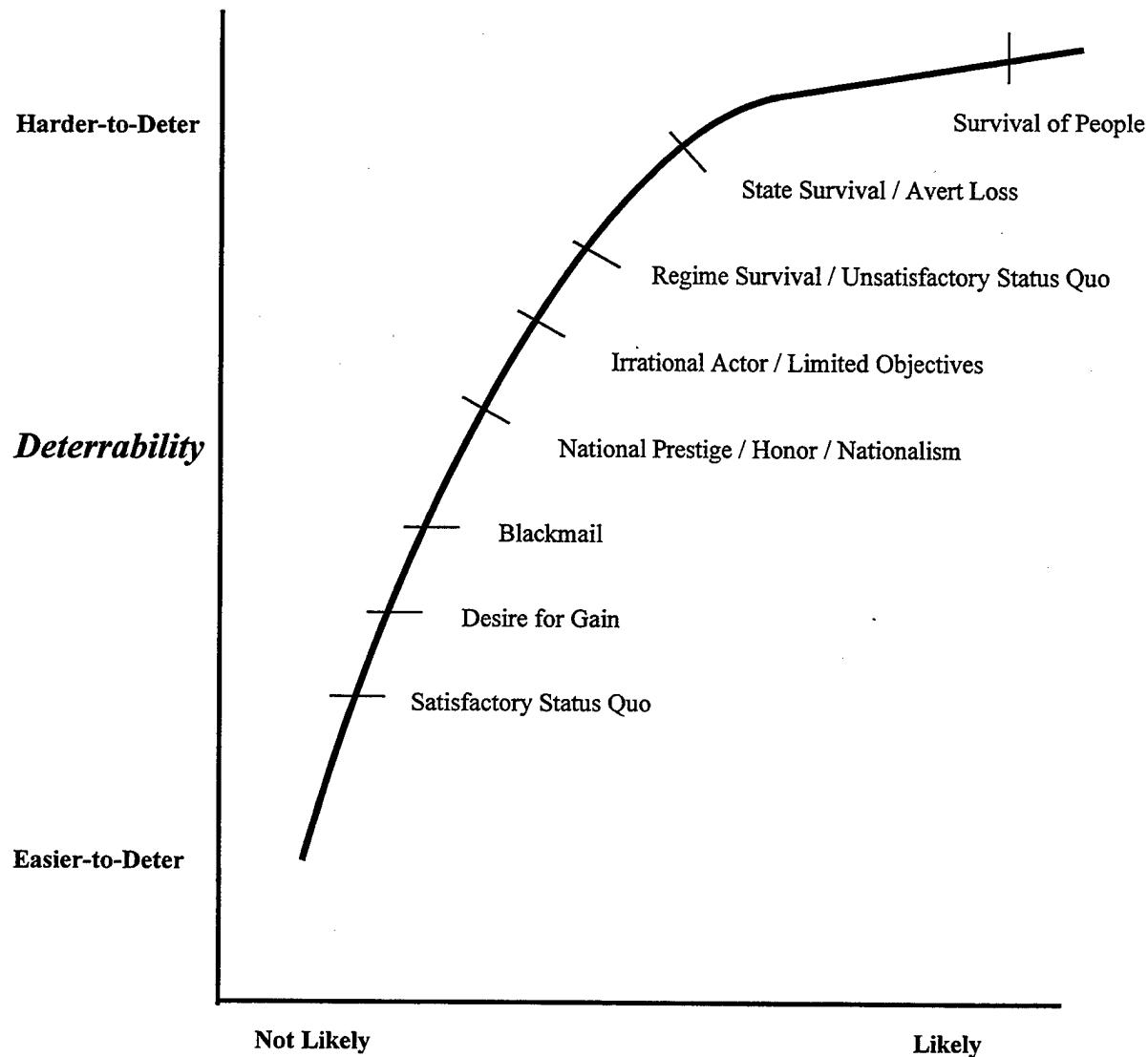
The end of the Cold War has clearly presented the United States with a new type of extended deterrence challenge. The movement of U.S. nuclear strategy from massive retaliation to one of flexible response, with the intermittent appearance of concepts such as mutual assured destruction, illustrates the changing nature of deterrence strategy. Unfortunately, it is more difficult to understand today's strategic environment than that of the Cold War. Hence, it is practically impossible to identify a single deterrence strategy to apply to every world crisis. However, in an effort to categorize potential adversaries and base an extended deterrence strategy upon specific categories, the graph in Figure 1, based upon a 1995 study by the RAND Corporation,¹⁴² incorporates several important motives that aid in understanding an adversary's likely course of action. Figure 1 illustrates the degree of difficulty involved in deterring an adversary versus the likelihood of a rogue state to opt for a triangular deterrence strategy, which is directly related to the likelihood of an extended deterrence failure.

Figure 1 does not completely discount acts of terrorism involving WMDs; however, in the near-term it is unlikely that a non-state actor would possess WMD capability. As Walter Laqueur has pointed out, "The scientific literature is replete with the technical problems inherent in the production, manufacture, storage, and delivery of each of the three classes of unconventional weapons."¹⁴³ It has been argued in this thesis that the technology and materiel are accessible, but the capital, expertise, coordination,

¹⁴² Kenneth Watman and Dean Wilkening, *U.S. Regional Deterrence Strategies* (Santa Monica: RAND MR-490-A/AF, 1995), p. 24.

¹⁴³ Walter Laqueur, "Postmodern Terrorism," *Foreign Affairs* 75, No. 4 (September/October 1996), p. 30.

and concealment required to effectively fuse these elements could remain insurmountable obstacles for smaller non-state actors.



Triangular Deterrence Strategy

(Extended Deterrence Failure)

Figure 1. Deterrence Continuum. Illustrates the link between the motives of an adversary and the likelihood the adversary will resort to a strategy of triangular deterrence, making the adversary harder-to-deter.

A. CASE STUDIES 1-3

The scenarios discussed heretofore can be better understood by referring to Figure

1. In the case of the Israeli-Arab-Soviet triangle, it is understandable why the Soviet Union, unquestionably superior militarily to Israel, had to take Israeli nuclear posturing seriously. Israel was concerned not only with the survival of its state or regime, but also the survival of its people. This category holds the highest position on the graph in Figure 1. With the dissolution of the Soviet Union, it can be presumed that the perceived threat to state existence and the survival of the Israeli people is diminished. Thus, any nuclear retaliatory threats by Israel would be somewhat less credible. However, this situation is difficult to assess given Israel's proximity to numerous hostile Arab states that continue to profess an interest in the total annihilation of Israel. Nonetheless, a nuclear threat from Israel based upon the most credible motive from Figure 1 is less plausible in the current circumstances.

During the 1990-1991 Gulf War, Saddam Hussein was most concerned with the survival of his regime, but in the absence of a credible regional deterrent, Hussein attempted to change the status quo and achieve a limited objective of gaining additional territory. In addition to these motives, Saddam Hussein is also perceived by many as an irrational actor, which further complicates the scenario. Saddam Hussein's motives are positioned on various portions of the graph, illustrating the difficulty of prescribing a single strategy for all international crises. The one motive that is absent, not surprisingly, is the survival of the Iraqi people. As Saddam Hussein began guarding Iraqi palaces with human shields, it became obvious that he attaches little value to the lives of the Iraqis, contrary to the value that the Israeli government attaches to its citizens. Motives from the

lower portion of the graph inspired Saddam Hussein's initial aggression and signaled the failure of extended deterrence, but Saddam Hussein quickly shifted to the upper portion of the graph, regime survival, as coalition forces began their massive retaliation.

The Gulf War should be viewed as a limited success for the United States and a watershed "learning experience" for rogue states. Such states are now capable of refining and developing an effective triangular deterrence strategy against the United States based on its conduct during the Gulf War and well-known U.S. sensitivities. Iraq may have stumbled upon yet another U.S. sensitivity as it withdrew from Kuwait — environmental warfare. The burning of Kuwaiti oil fields, although originally intended to impede coalition aircraft targeting capability, provoked a significant public reaction from the United States and the international community.

B. CASE STUDY 4

The North Korean motives for seeking nuclear weapons, identified earlier by Michael Mazarr, coincide closely with the motives for adopting a strategy of triangular deterrence depicted on the deterrence continuum. According to a 1995 report by two RAND Corporation analysts, a regional adversary may threaten to use WMD to achieve three objectives: "(1) to deter U.S. intervention within the region, (2) to intimidate U.S. allies within the region, and (3) to ensure the survival of the state or regime from external threats, specifically, to prevent the United States from seeking unconditional surrender or the ouster of the leadership as the condition for an armistice."¹⁴⁴ North Korean motives for developing a nuclear, as well as chemical and biological, weapons capability clearly

¹⁴⁴ Dean Wilkening and Kenneth Watman, *Nuclear Deterrence in a Regional Context* (Santa Monica: RAND MR-500-A/AF, 1995), p. 32.

depict an adversary that fits into the harder-to-deter category as defined in the RAND report and illustrated in the Figure 1.

North Korea's nuclear strategy is consistent with the strategy discussed earlier for its national policy and the military strategy for conventional forces. There is no evidence of long-term nuclear strategy, and it is highly likely that any type of strategy lags behind the development of a nuclear force. There is no separation between military, nuclear and national strategy in the formulation of foreign policy in Pyongyang. North Korea maintains a policy of ambiguity concerning its nuclear weapons capability, as with all other facets of its articulated foreign policy. Keeping outsiders guessing about North Korea's capabilities and intentions is a fundamental Asian tradition.¹⁴⁵ "Thus, what is of supreme importance in war is to attack the enemy's strategy," according to Sun Tzu.¹⁴⁶

Pyongyang remains convinced of the value of nuclear weapons, and for good reason. North Korea's policy of ambiguity, and ultimately of juche, is legitimized by the actions of the United States. Washington continues to show its willingness to negotiate with North Korea in hopes of modifying North Korean behavior, as well as furthering the negotiation process. U.S. negotiation with North Korea enables North Korea to avoid formal discussion of the 1991 Denuclearization Agreement with South Korea and other restrictive international mechanisms. Furthermore, U.S. willingness to negotiate with North Korea sets an unfavorable precedent when dealing with pariah states seeking WMD capability. "How can Iran be expected to continue to adhere to the rules of the

¹⁴⁵ Desmond Ball, "Strategic Culture in the Asia-Pacific Region," *Security Studies* 3, No. 1 (Autumn 1993), pp. 44-74.

¹⁴⁶ Sun Tzu quoted in "Strategic Personality, Country Case Study: North Korea," by Lee Gentry (Paper published by SAIC, McLean, VA, 1994), p. 24.

nuclear Nonproliferation Treaty when North Korea, which has violated those rules and will be allowed to do so for years, is being rewarded?”¹⁴⁷ The manipulation of the IAEA inspections provides legitimacy for the Kim regime, and in broader sense to all rogue regimes, as the United States continues to negotiate with Pyongyang. Lee Gentry states, “The barbarians — e.g., the United States — are petitioning the rightful rulers of Korea for favors; something we [the United States] have never done with Seoul.”¹⁴⁸

The North Korean policy of ambiguity supports a strategy of triangular deterrence against the United States. As Lee Gentry points out,

Pyongyang has had success with military intimidation. If tensions should rise and the United States consider reinforcing its military posture in the region, North Korea could use an ambiguous nuclear capability and a proven missile delivery capability to threaten the south or Japan. Denial of Japanese bases would make force deployment much more difficult. Convincing Seoul that South Korea could be a target of nuclear attack ¹⁴⁹ might even cause them to rethink their relations with Washington.

The ability of North Korea to successfully intimidate its regional neighbors was illustrated in the 1994 crisis between North Korea and the United States and the ROK. As was noted earlier in this thesis, “As the United States prepared for battle, it quickly became clear that Japan could not be counted on to negotiate a solution or give military support. Tokyo was not expected to send troops or warships to fight North Korea; but Japan even refused to let its naval forces clear mines.”¹⁵⁰ North Korea reaffirmed its

¹⁴⁷ Elaine Sciolino, “Clinton’s \$4 Billion Carrot: Gambling That North Korea Will Abandon Nuclear Program,” *The New York Times*, 20 October 1994.

¹⁴⁸ Lee Gentry, “Strategic Personality, Country Case Study: North Korea” (Paper published by SAIC, McLean, Virginia, 1994), p. 25.

¹⁴⁹ *Ibid.*, p. 26.

¹⁵⁰ Nicholas Kristof, “The Problem of Memory,” *Foreign Affairs* 77, No. 6 (1998), p. 44.

intent to target U.S. regional allies in the event of a military confrontation in 1998 as the United States attempted to enforce inspections of North Korean nuclear facilities in accordance with the 1994 Agreed Framework. In response to the news that the United States was considering the use of military force to uphold the conditions of the 1994 Agreement, "North Korean military leaders...warned they will strike Japan and any other nation that helps U.S. forces."¹⁵¹

This point greatly diminishes the ability of the United States to build a coalition force like that of the 1990-1991 Gulf War. However, the U.S. public is more likely to support, and in many instances demand, a coalition force. The deeply rooted cultural tensions in the region present large obstacles for coalition-building in response to regional crises. Currently, China, Korea (divided or reunified), and — as demonstrated by greater U.S. — Japanese cooperation in the wake of the Nye Initiative — Japan continues to pursue bilateral relationships with the United States due to the inherent distrust among these Asian nations.¹⁵² Bilateral security relationships place the United States in a precarious situation owing to the risk of confrontations or conflicts involving Japan, South Korea, and/or other nations.

North Korea has learned to exploit its unique situation in Asia. A policy of ambiguity enables North Korea to play on deeply rooted regional fears and make its behavior appear irrational and unpredictable in Western eyes. North Korea's WMD and ballistic missile programs demand that the international community take its threats

¹⁵¹ "N. Korea: U.S. Wants War," *The Monterey County Herald*, 8 December 1998, p. A8.

¹⁵² Desmond Ball, "Strategic Culture in the Asia-Pacific Region," *Security Studies* 3, No. 1 (Autumn 1993), pp. 44-74.

seriously and provide North Korea with enough diplomatic leverage to gain concessions from the West and perpetuate the Kim regime. The motives behind North Korean foreign policy are scattered across the deterrence continuum in Figure 1. This diverse range of motives presents an exceptionally difficult problem for the United States and the nations in the region. North Korea is certainly in the harder-to-deter category and may be, of all the world's rogue and pariah states, the one most likely to adopt a strategy of triangular deterrence.

The case studies examined in this thesis provide evidence regarding multiple motives from the upper portion of the graph in Figure 1. This portends a future of unpredictable, harder-to-deter adversaries likely to use a triangular deterrence strategy effectively. The 1990-1991 Gulf War was an important learning point for rogue states throughout the world planning to confront the powerful conventional forces of the United States. General K. Sudarji of the Indian Army is quoted as having said that "the real lesson of Desert Storm is that a nation like Iraq should first acquire nuclear weapons before it confronts the United States."¹⁵³

This chapter has provided the basis for evaluating the likelihood a rogue state might pursue a strategy of triangular deterrence by ranking the various motives and depicting them in Figure 1. Chapter VI discusses options available to the United States to reduce the effectiveness of a triangular deterrence strategy.

¹⁵³ Sudarji quoted by George Quester and Victor Utgoff, "No-First-Use and Nonproliferation: Redefining Extended Deterrence," *The Washington Quarterly* 17, No. 2 (1994), p. 4, [Lexis-Nexis].

VI. CONCLUSION

The previous chapters have provided evidence to support the hypothesis that a strategy of triangular deterrence is a plausible and formidable strategy for rogue states to employ against the United States. Although circumstances in the post-Cold War era have changed, the basic requirements of successful extended deterrence have not; and the United States does not currently have the resources to fulfill the requirements necessary for successful extended deterrence in all regions of the world. Moreover, rogue states are gaining readier access to WMD and delivery systems such as ballistic missiles. Hence, the necessary components for an effective triangular deterrence strategy are available for rogue states that are properly motivated.

Perhaps the most important step in minimizing U.S. vulnerability to a triangular deterrence strategy is to recognize the strategy as well as the concomitant characteristics that could make it a successful strategy against the United States — specifically, U.S. vulnerabilities. Obviously some of the vulnerabilities discussed in Chapter II, such as those influenced by U.S. public opinion, are virtually impossible to eliminate because they are inherent in the system of government of the United States and because they are among the many attributes which define the United States. However, world security conditions have changed and continue to change. The United States government may have to articulate these changes more clearly to the American public to garner support for actions that might seem radical to the average American citizen, such as increased unilateral action by the United States. Furthermore, the United States may have to prepare the international community for potential policy changes that may be required when U.S. national interests are threatened in this new and unpredictable environment.

One area of potential deviation, which has become accepted as an international norm,¹⁵⁴ is the use of nuclear weapons. As discussed in Chapter II, the “taboo” associated with the operational use of nuclear weapons weighs heavily upon U.S. policymakers and military strategists. Analysts such as Robert Harkavy have argued that this concept should be reconsidered and that the deterrent value that nuclear weapons provide against rogue states armed with WMDs be recognized. In his view, the arguments against threatening the use of nuclear weapons, such as undermining the U.S. commitment to the nonproliferation of nuclear weapons as well as the current U.S. policy of ambiguity,¹⁵⁵ should be scrutinized as rogue states become better equipped to exploit U.S. vulnerabilities and threaten U.S. interests.

NORTH KOREA: A MODEL ROGUE STATE

The North Korean regime, driven by the motives and armed with the weapons discussed above, presents a complex challenge for U.S. policymakers. Developing an effective policy to counter a strategy of triangular deterrence, such as that which may be employed by North Korea, is a daunting endeavor. The United States and South Korea are forced to maintain a credible deterrent against a potent North Korean army, while simultaneously attempting to normalize relations with North Korea through negotiations, economic interaction, and political and military concessions. The paramount concern is

¹⁵⁴ Richard Price and Nina Tannenwald, “Norms and Deterrence: The Nuclear and Chemical Weapons Taboo,” in *The Culture of National Security: Norms and Identity in World Politics*, ed. Peter Katzenstein (New York: Columbia University Press, 1996).

¹⁵⁵ For a discussion on the potential repercussions resulting from nuclear weapons use by the United States as well as the U.S. policy of ambiguity see Mark Lakamp, “Of Owl or Ostrich? The U.S. Policy of Calculated Ambiguity to Deter the Use of Chemical and Biological Weapons” (Master’s Thesis, Naval Postgraduate School, 1998).

to prevent war on the Korean peninsula, which is achieved, as it has been since 1953¹⁵⁶, through a credible deterrent. However, experts such as Patrick Morgan have argued that the current U.S. policy of engagement directly opposes and undermines the tenets of a credible deterrent.¹⁵⁷

Since the end of the Cold War, deterrence has played a smaller role in U.S. relations with North Korea. The removal of U.S. ground- and sea-based tactical nuclear weapons in 1991 created anxiety within South Korea over the U.S. commitment to South Korea. The United States has inadvertently deepened these anxieties by implementing its policy of engagement with North Korea without consulting South Korea as thoroughly as Seoul desires. The U.S. policy of engagement contributes to the impression that the North Korean regime will survive; and it implies U.S. acceptance of North Korea, in cooperation with South Korean policy, which further enhances Kim's legitimacy.

Proponents of a strong deterrence posture against North Korea further argue that North Korea may be too irrational to deter. The proper response to an irrational state is not engagement, but instead, a deterrent threat that is as stark and overwhelming as possible.¹⁵⁸ Some experts argue that the U.S. removal of tactical nuclear weapons, the ultimate in "stark" weapons, from the Korean Peninsula may have diminished the threat required to deter a regime such as Pyongyang's.¹⁵⁹

¹⁵⁶ Nicholas Eberstadt, *Korea Approaches Unification* (New York: M. E. Sharpe, Inc., 1995), p. 142.

¹⁵⁷ Patrick Morgan, "U.S. Extended Deterrence in East Asia," in Tong Whan Park, ed., *The U.S. and the Two Koreas: A New Triangle* (Boulder: Lynne Rienner Publishers, Inc., 1998), p. 58.

¹⁵⁸ *Ibid.*, p. 59.

¹⁵⁹ *Ibid.*

The obvious advantage the United States maintains in the nuclear weapons arena and its ability to achieve escalation dominance coupled with the numerous statements made by the United States and the ROK guaranteeing the complete dissolution of the Kim regime still may not represent an adequate deterrent. “If the North attacks, it will be because it was *not deterrible*, rather than because the United States and the ROK did not do enough to deter it.”¹⁶⁰ A desperate and irrational Kim regime may perceive aggression as the only possible hope for its preservation or, perhaps, as a final act of defiance before it perishes. As Walter Laqueur has observed, “The Bible says that when the Old Testament hero Samson brought down the temple, burying himself along with the Philistines in the ruins, ‘the dead which he slew at his death were more than he slew in his life.’”¹⁶¹ A failure of extended deterrence, as pointed out by Robert Harkavy,¹⁶² is a prerequisite that provides a state the opportunity to employ a triangular deterrence strategy. This is a plausible scenario, based on the arguments above, in the North Korean case.

Given the potentially risky approach the United States is currently pursuing with engagement while attempting to maintain a credible deterrent, what should the future U.S. policy focus on? The tenets of engagement concentrate on the prerequisites for establishing a Western-style diplomatic relationship with North Korea, perhaps at the expense of U.S. deterrence credibility. An effectual U.S. relationship must be established

¹⁶⁰ Ibid., p. 60.

¹⁶¹ Walter Laqueur, “Postmodern Terrorism,” *Foreign Affairs* 75, No. 5, (September/October 1996), p. 36.

¹⁶² Robert Harkavy, “Triangular or Indirect Deterrence/Compellence: Something New in Deterrence Theory?,” *Comparative Strategy* 17, No. 1 (1998), p. 75.

with North Korea before multilateral mechanisms are pursued. Without such a relationship, North Korea will continue to exploit these international mechanisms for its own gain.

South Korea is eager to play a larger role in the negotiations on the Korean peninsula, as it perceives reunification growing closer. A 1995 study by the RAND Corporation and the Korea Institute of Defense Analyses (KIDA) stressed that the U.S.-ROK security relationship must move from a threat-based relationship toward an arrangement that satisfies the economic, military, and political interests of both parties in the region.¹⁶³ The study points out that now is the time for the United States and the ROK to begin restructuring their current alliance in preparation for reunification. The ultimate goal of multilateral relationships will be a gradual transition from the bilateral diplomacy currently used between all countries in the region. As noted earlier, the regional sensitivities based on past atrocities will severely impede such multilateral relationships. Indeed, some experts believe that a regional alliance may be virtually impossible.¹⁶⁴ A discussion concerning the shape of future alliances assumes the diminution of North Korea as a threat. It also assumes that the Kim regime would be willing to participate in the international community as a rational state, as measured by Western standards. However, the actions of North Korea do not support such a presupposition.

¹⁶³ Jonathan Pollack and Young Koo Cha, *A New Alliance for the Next Century* (Santa Monica: RAND MDA903-90-C-0004, 1995).

¹⁶⁴ Aaron Friedberg, "Ripe for Rivalry: Prospects for Peace in Multipolar Asia," *International Security* 18, No. 3 (Winter 1993/94), pp. 5-33.

The aggressive North Korean WMD and ballistic missile programs suggest an uncooperative North Korean regime concerned only with its own survival. In a briefing to the U.S. Congress, George Tenet, Director of Central Intelligence, stated, "I can hardly overstate my concern about North Korea.... In nearly all respects, the situation there has become more volatile and unpredictable."¹⁶⁵ North Korea refuses to comply with the 1994 Agreed Framework, signaling its continued disregard for all international mechanisms. The Clinton administration hoped to salvage the 1994 agreement by committing international aid to alleviate North Korea's current economic collapse and widespread famine. However, George Tenet dispelled these optimistic expectations of North Korean reciprocity in response to the U.S. guaranteed aid with a warning that "North Korea has failed to abide by the agreement."¹⁶⁶

In January 1999, Secretary of Defense William S. Cohen further acknowledged the North Korean threat. Secretary Cohen announced that the Defense Department was planning to allocate additional funds to "National Missile Defense (NMD) and Theater Missile Defense (TMD) programs to meet the growing ballistic missile threats from rogue states to U.S. forces deployed overseas and potentially to U.S. territory."¹⁶⁷ Secretary Cohen endorsed the findings of the Rumsfeld Commission and commented on the August 31, 1998, North Korean Taepo-Dong 1 launch.

¹⁶⁵ James Risen, "C.I.A. Sees a North Korean Missile Threat," *The New York Times*, 3 February 1999, p. A6.

¹⁶⁶ *Ibid.*

¹⁶⁷ William Cohen, Secretary of Defense, "Cohen Announces Plan to Augment Missile Defense Program," Office of Assistant Secretary of Defense News Release, 20 January 1999, available online at <<http://www.defenselink.mil>>.

That missile test demonstrated important aspects of intercontinental missile development, including multiple-stage separation, and unexpectedly included the use of a third stage. The Taepo-Dong 1 test was another strong indicator that the United States will, in fact, face a rogue nation missile threat to our homeland against which we will have to defend the American people.¹⁶⁸

The Theater Missile Defense system is designed to protect U.S. troops and allies from short-and medium range missiles, a capability possessed by North Korea. If effective, TMD programs could provide a solution to a strategy of triangular deterrence employed by North Korea or other rogue states. This approach reflects a policy of deterrence by denial, an approach supported by other facets of U.S. policy regarding regional conflicts involving adversaries with WMD capabilities. The 1997 Defense Department statement on counterproliferation stated that the United States must be prepared to "fight and win under conditions where an adversary may use asymmetric means, thereby demonstrating to any potential aggressor that the risks incurred from using NBC weapons would far outweigh any advantages gained."¹⁶⁹

The United States has developed a robust program to train U.S. military personnel to be able to operate in an NBC environment. U.S. Army Colonel John Wade stated that "protecting service members from chemical and biological warfare is a top Pentagon priority."¹⁷⁰ Chemical-biological defense has been more fully integrated into training

¹⁶⁸ Ibid.

¹⁶⁹ United States Department of Defense, Office of the Secretary of Defense, "Proliferation: Threat and Response," (Washington, D.C., November 1997), p. 53.

¹⁷⁰ John Wade, Deputy for Counterproliferation and Chemical and Biological Defense to the Director of Defense Research and Engineering and the Undersecretary of Defense for Acquisition and Technology, "Knowledge Key to Combating Chemical, Biological Warfare," by Linda Kozaryn, American Forces Press Service, available online at: <http://www.defenselink.mil/news/Febr1999/n02231999_9902231.html> [7 March 1999].

programs. According to Wade, "This is now just another facet of being a soldier, sailor, airman or Marine that you have to assimilate into the rest of your military skills... We realized that's how we're going to fight, so we started training that way."¹⁷¹

A policy based on deterrence by denial would eliminate many of the advantages rogue states such as North Korea maintain through the threat of WMD and ballistic missiles directed to exploit the sensitivities and vulnerabilities of the United States. A capable TMD system would also answer the question posed by Secretary of Defense Cohen: "The real issue comes up with: how do you deal with a country like a North Korea or potentially a Saddam Hussein who was well on his way to developing an ICBM capability with also a nuclear warhead?"¹⁷²

A policy of deterrence by denial would allow the United States to continue its policy of engagement, while compensating for the perceived reduction in retaliatory deterrence credibility (also called deterrence by threat of punishment) as measured by the standards of traditional Cold War constructs.

What options are available to the United States to counter a sound triangular deterrence strategy? Analysts such as Robert Harkavy have argued that a declaratory nuclear "first-use" policy, to include a counter-cities doctrine, might serve as a powerful deterrent to any adversary contemplating WMD use in a triangular deterrence scenario. Additionally, in Harkavy's view, this would signal a significant change in U.S.

¹⁷¹ Ibid.

¹⁷² Secretary of Defense William Cohen's testimony to the U.S. Congress, Senate, Armed Services Committee, FY 2000 Department of Defense Authorization Request, 2 February 1999, Federal News Service, available online at: <http://peacock.policy.osd.pentagon.smil.mil/ebird/ebird_sup/s19990204cohen.html> [3 February 1999].

declaratory policy, and perhaps raise doubts about some of the assumed U.S. sensitivities that rogue states might be planning to exploit. The resurgence of a regional "massive retaliation" policy, as suggested by Harkavy, could hypothetically strengthen U.S. extended deterrence credibility as well. The solution to the burgeoning and complex threats that are likely to arise in the future is not easily articulated, however, because of the political and social factors (discussed in Chapter II) that make the regional "massive retaliation" policy suggested by Harkavy implausible.

It should nonetheless be clear that the United States will not be able to rely upon a conventional campaign similar to that of the Gulf War to solve all future crises. The strategic environment has changed, and will continue to change dramatically in the future, including South Korean – Japanese reactions to evolving U.S. policies toward North Korea, as well as the individual policies of South Korea and Japan toward North Korea. The advantage held by the United States in conventional warfare could be neutralized or eliminated by rogue states capable of developing and incorporating WMDs in a strategy such as triangular deterrence.

The plausibility of future scenarios involving WMDs and a triangular deterrence strategy is further supported by Andrew Marshall, the Director of the Department of Defense's Office of Net Assessment: "the Gulf War may have convinced Third World countries to obtain nuclear weapons so the U.S. doesn't become engaged."¹⁷³

These lessons are not lost on larger powers such as Russia. As James FitzSimonds points out, "The Russian military doctrine of 1993 eliminated that country's long-

¹⁷³ Andrew Marshall, interview by Peter Schwartz, "Warrior in the Age of Intelligent Machines," *Wired* 3, No. 4 (March 1994), p. 138.

standing pledge of ‘no first use’ of nuclear weapons implicitly because of the ‘nuclear effects’ demonstrated by the U.S. conventional arsenal in the 1991 Gulf War. Continued foreign interest in nuclear, chemical, and biological warfare programs argue that these options be taken seriously in regional contingencies.”¹⁷⁴ Obstacles such as cost and restricted access to technical information no longer insure a U.S. advantage in WMD development or ballistic missile technology. “Affordability and critical technology access are diminishing problems for most rising powers.”¹⁷⁵ It will therefore be increasingly imperative for the United States to incorporate TMD systems into a policy of deterrence by denial.

Among the potentially numerous motives rogue states such as North Korea may have for aggressive action, identifying those that occupy the highest positions on the graph in Figure 1 may provide valuable indications as to the credibility of their threatening posture. Taking steps to minimize the threat by preventing an escalation in motives, as categorized in Figure 1, may require appeasement in some cases and a firmer approach in others. Either course of action may contradict current U.S. policies or international norms. In cases of dire necessity, the United States must be prepared to depart from current U.S. policies to address these threats to vital interests. Rogue states have been labeled “rogues” because they simply do not operate under the same constraints as the United States, and Washington may have to take firm action to defend the vital interests of the United States and its allies. As Clausewitz observed,

¹⁷⁴ James FitzSimonds, “The Changing Military Threat” (presented as part of Beyond the Technological Frontiers of Force XXI Conference on 24 September 1996), p. 5.

¹⁷⁵ Ibid., p. 3.

*To discover how much of our resources must be mobilized for war, we must first examine our own political aim and that of the enemy. We must gauge the strength and situation of the opposing state. We must gauge the character and abilities of its government and people and do the same in regard to our own. Finally, we must evaluate the political sympathies of other states and the effect the war may have on them. To assess these things in all their ramifications and diversity is plainly a colossal task.*¹⁷⁶

¹⁷⁶ Carl von Clausewitz quoted in Richard Haass, *Intervention*, (Washington D.C.: Carnegie Endowment for International Peace, 1994), p. 73.

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BIBLIOGRAPHY

"1998 Report on the Ballistic Missile Threat," Carnegie Endowment for International Peace, Proliferation Brief, 28 September 1998.

A National Security Strategy of a New Century, Washington, D.C., GPO, 1997.

Allan, Charles, "Extended Conventional Deterrence: In From the Cold and Out of the Nuclear Fire," *The Washington Quarterly* 17, No. 3 (1994), [Lexis-Nexis].

Atkinson, Rick. *Crusade*, Boston: Houghton Mifflin Company, 1993.

Ball, Desmond, "Strategic Culture in the Asia-Pacific Region," *Security Studies* 3, No. 1 (1993), pp. 44-74.

Binnendijk, Hans and Ronald Montaperto, *Strategic Trends in China*, Washington, D.C.: National Defense University Press, 1998.

Burrow, William and Robert Windrem, *Critical Mass*. New York: Simon and Schuster, 1994.

Clarke, Walter and Jeffrey Herbst, *Learning from Somalia*, Boulder: Westview Press, 1997.

Cohen, Avner, *Israel and the Bomb*, New York: Columbia University Press, 1998.

Cohen, William, "Cohen Announces Plan to Augment Missile Defense Program," Office of Assistant Secretary of Defense News Release, 20 January 1999, Available [Online]: <<http://www.defenselink.mil>>.

Codevilla, Angelo. "Defenseless America," *Commentary* 102, No. 3 (1996), pp. 51-56.

Concept of Future Joint Operations, Fort Monroe, VA, Office of Commander, Joint Warfighting Center, 1997.

Conduct of the Persian Gulf War, Department of Defense, Final Report to Congress, Washington, D.C., GPO, 1992.

Cordesman, Anthony, *After the Storm: The Changing Military Balance in the Middle East*, Boulder: Westview Press, 1993.

Crocker, Chester, Fen Hampson, and Pamela Aall, eds., *Managing Global Chaos*, Washington, D.C., United States Institute of Peace Press, 1996.

Cummings, Bruce, *Korea's Place in the Sun: A History*, New York: W.W. Norton & Company, 1997.

Davis, Paul, ed., *New Challenges for Defense Planning*, Santa Monica: RAND Corporation, 1994.

“Devil’s Brew Briefings: North Korea,” *Centre for Defence and International Security Studies*. Available [Online], <<http://www.cdiis.org/hometemp.htm>> [7 March 1999].

Dunlap, Charles, “How We Lost the High-Tech War of 2007,” *The Weekly Standard* (29 January 1996), pp. 22-28.

Dunnigan, James and Austin Bay, *From Shield to Storm*, New York: William Morrow and Company, Inc., 1992.

Eberstadt, Nicholas, *Korea Approaches Reunification*, New York: M.E. Sharpe, Inc., 1995.

Eckert, Carter, et al., *Korea Old and New: A History*, Seoul, Korea: Ilchokak Publishers, 1990.

Erlanger, Steven, “U.S. Signs Accord to Protect Israel From Mass-Destruction Arms,” *The New York Times*, 2 November 1998, p. A13.

Fairbank, John, Edwin Reischauer, and Albert Craig, *East Asia: Tradition and Transformation*, rev. ed., Boston: Houghton Mifflin Company, 1989.

“Feasibility of Third World Advanced Ballistic and Cruise Missile Threat,” National Defense Industrial Association, Land Attack and Air Defense Committee, October 1998.

FitzSimonds, James, “The Changing Military Threat,” Presented as part of *Beyond the Technological Frontiers of Force XXI Conference*, 1996.

Friedberg, Aaron, “Ripe for Rivalry: Prospects for Peace in Multipolar Asia,” *International Security* 18, No. 3 (Winter 1993/94), pp. 5-33.

Gedmin, Jeffrey, “The Secretary-Generalissimo, *The American Spectator* (November 1993), p. 31.

Gentry, Lee, “Strategic Personality, Country Case Study: North Korea,” Paper published by SAIC, McLean, VA, 1994.

Gibbons, Earl, "Forging Consensus: The Western Alliance and the Invasion of Kuwait," Washington, D.C., Georgetown University, 1992.

Gill, Bates, Director, Center for Northeast Asian Policy Studies, 19 November 1998.

Gordon, Michael and Bernard Trainor, *The General's War*, Boston: Little, Brown, and Company, 1995.

Greenberg, Joel, "Israel Calmly Readies Itself, Just In Case," *The New York Times*, 13 November 1998, p. A12.

Haas, Richard, *Intervention*, Washington, D.C.: Carnegie Endowment for International Peace, 1994.

Harkavy, Robert, "Triangular or Indirect Deterrence/Compellence: Something New in Deterrence Theory?" *Comparative Strategy* 17, No. 1 (1998), pp. 63-81.

_____, "After the Gulf War: The Future of Israeli Nuclear Strategy," *The Washington Quarterly* 14, No. 3 (1991), pp. 161-179.

Hays, Peter, Brenda Vallance, and Allan Van Tassel, eds., *American Defense Policy*, Baltimore: John Hopkins University Press, 1997.

Hersh, Seymour, *The Samson Option*, New York: Random House, 1991.

Huth, Paul, *Extended Deterrence and the Prevention of War*, New Haven: Yale University Press, 1988.

Iklé, Fred, "The Second Coming of the Nuclear Age," *Foreign Affairs* 75, No. 1 (1996), pp. 119-128.

Insight Team of the London Sunday Times, *The Yom Kippur War*, Garden City: Doubleday, 1974.

International Institute for Strategic Studies, *The Military Balance 1998/99*, London: Oxford University Press, 1998.

Joint Vision 2010, Washington, D.C.: Office of the Chairman of the Joint Chiefs of Staff, 1997.

Katzenstein, Peter, ed., *The Culture of National Security: Norms and Identity in World Politics*, New York: Columbia University Press, 1996.

Kemp, Geoffrey and Robert Harkavy, *Strategic Geography and the Changing Middle East*, Washington, D.C.: Brookings Institution Press, 1997.

Kihl, Young Whan, *Korea and the World: Beyond the Cold War*, Boulder: Westview Press, Inc., 1994.

Kozaryn, Linda, "Knowledge Key to Combating Chemical, Biological Warfare," *Armed Forces Press Service*, Available [Online]: <http://www.defenselink.mil/news/Feb1999/n02231999_9902231.html> [7 March 1999]

Kristof, Nicholas, "The Problem of Memory," *Foreign Affairs* 77, No. 6 (1998), pp. 37-49.

Lakamp, Mark, "Of Owl or Ostrich? The U.S. Policy of Calculated Ambiguity to Deter the Use of Chemical and Biological Weapons," Master's Thesis, Naval Postgraduate School, 1998.

Laqueur, Walter, "Postmodern Terrorism," *Foreign Affairs* 75, No. 4 (1996), p. 30.

Lawrence, Robert and Joel Larus, eds., *Nuclear Proliferation Phase II*, Lawrence: University Press of Kansas, 1974.

Lieber, Robert, ed., *Eagle Adrift: American Foreign Policy at the End of the Century*, New York: Wesley Longman, Inc., 1997.

Marshall, Andrew, Interview by Peter Schwartz, "Warrior in the Age of Intelligent Machines," *Wired* 3, No. 4 (1994), p. 138.

Maybaumwisniewski, Susan and Mary Sommerville, *Blue Horizon: United States-Japan-PRC Tripartite Relations*, Washington, D.C.: National Defense University, 1997.

Mazarr, Michael, *North Korea and the Bomb*, New York: St. Martin's Press, 1995.

Myers, Norman, *Ultimate Security: The Environmental Basis of Political Stability*, Washington, D.C.: Island Press, 1996.

"Northeast Asia," *DefenseLINK*, Available [Online]: <http://www.defenselink.mil/pubs/prolif97/ne_asia.html> [7 March 1999].

"North Korea Reportedly has Five Nuclear Bombs," Agence France-Press, Tokyo, 16 April 1999.

"North Korea Says Defector is Deranged," Associated Press, 23 April 1997, AM cycle.

"North Korea: U.S. Wants War," *The Monterey County Herald*, 8 December 1998, p. A8.

"Nuclear Deterrence Force Still Essential," *Defense Link*, Vol. 13, No. 34, Available [Online]: <<http://www.defenselink.military/speeches/1998/di1334.html>> [07 October 1998]

Oberdorfer, Don, *The Two Koreas*, Reading, MA: Addison-Wesley, 1997.

Park, Tong Whan, ed., *The U.S. and the Two Koreas*, Boulder: Lynne Rienner Publishers, Inc., 1998.

Payne, Keith, *Deterrence in the Second Nuclear Age*, Lexington: The University of Kentucky Press, 1996.

Pollack, Jonathan and Young Koo Cha, *A New Alliance for the Next Century*, Santa Monica: RAND Corporation, 1995.

Quester, George and Victor Utgoff, "No-First Use and Nonproliferation: Redefining Extended Deterrence," *The Washington Quarterly* 17, No. 2 (1994), [Lexis-Nexis].

Rhodes, Robert, *His Complete Speeches*, New York and London: Chelsea House Publishers, 1974.

Risen, James, "C.I.A. Sees a North Korean Missile Threat," *The New York Times*, 3 February 1999, p. A6.

Sciolino, Elaine, "Clinton's \$4 Billion Carrot: Gambling the North Korea Will Abandon Nuclear Program," *The New York Times*, 20 October 1994.

Sims, Calvin, "Japan Weighs Ban on Sending Cash Home to North Korea," *The New York Times*, 9 August 1999, p. A6.

Suh, Dae-Sook, *Kim Il Sung: The North Korean Leader*, New York: St. Martin's Press, 1995.

Tzu, Sun, *The Art of War*, Translated by Samuel Griffith, New York: Oxford University Press, 1963.

United States, Congress, Senate, Armed Services Committee, *FY 2000 Department of Defense Authorization Request*, Washington, D.C., 1999, Available [Online]: <http://peacock.policy.osd.pentagon.smil.mil/ebird/ebird_sup/s19990204cohen.html> [3 February 1999].

United States, Department of Defense, Office of the Secretary of Defense, *Proliferation: Threat and Response*, Washington, D.C., 1997.

Watman, Kenneth and Dean Wilkening, *U.S. Regional Deterrence Strategies*, Santa Monica: RAND Corporation, 1995.

_____, *Nuclear Deterrence in a Regional Context*, Santa Monica: RAND Corporation, 1995.

Weinberger, Caspar and Peter Schweizer, *The Next War*, Washington, D.C.: Regnery Publishing, Inc., 1996.

Wilson, George, "NATO Learns its Weakness: Fear of Bad Public Relations," *Navy Times*, 26 April 1998, p.54.

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